



## SAFETY DATA SHEET

### SAS222

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Product name SAS222  
 Container size 10ml, 50ml

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Adhesive.

##### 1.3. Details of the supplier of the safety data sheet

Supplier Nina Works,  
 Gelderd Road,  
 Leeds  
 LS12 6NA  
 Tel: +44 (0) 113 213 4300

##### 1.4. Emergency telephone number

Emergency telephone +44 (0) 113 213 4300

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards Not Classified  
 Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335  
 Environmental hazards Not Classified

##### 2.2. Label elements

###### Pictogram



Signal word Warning

Hazard statements H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

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<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	Ethoxylated Bisphenol A Dimethacrylate, 2-hydroxypropyl methacrylate, 1-Acetyl-2-phenylhydrazine

**2.3. Other hazards****Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>Ethoxylated Bisphenol A Dimethacrylate</b>	<b>30-60%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Polyethylene Glycol 200 Dimethacrylate</b>	<b>10-30%</b>
CAS number: 26570-48-9	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
<b>2-hydroxypropyl methacrylate</b>	<b>10-30%</b>
CAS number: 923-26-2                      EC number: 213-090-3	
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	

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<b><math>\alpha,\alpha</math>-dimethylbenzyl hydroperoxide</b>	<b>&lt;1%</b>
CAS number: 80-15-9	EC number: 201-254-7
<b>Classification</b>	
Org. Perox. E - H242	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
<b>1-Acetyl-2-phenylhydrazine</b>	<b>&lt;1%</b>
CAS number: 114-83-0	
<b>Classification</b>	
Acute Tox. 3 - H301	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Do not induce vomiting. Give plenty of water to drink. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

##### 4.2. Most important symptoms and effects, both acute and delayed

<b>Skin contact</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact</b>	Conjunctivitis, irritation, tearing.

##### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Specific treatments</b>	Treat symptomatically.
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#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	In case of fire: Toxic gases or vapours.
<b>Hazardous combustion products</b>	Oxides of the following substances: Carbon dioxide (CO <sub>2</sub> ). Nitrogen.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Containers close to fire should be removed or cooled with water.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Provide adequate ventilation.
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### 6.2. Environmental precautions

<b>Environmental precautions</b>	Avoid discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for cleaning up</b>	Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.
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### 6.4. Reference to other sections

<b>Reference to other sections</b>	For personal protection, see Section 8. For waste disposal, see Section 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Usage precautions</b>	Use only in well-ventilated areas. Avoid contact with eyes and prolonged skin contact. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.
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**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage precautions</b>	Store at temperatures not exceeding 38°C. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from sunlight. Do not use containers made of the following materials: Aluminium. Mild steel. Copper. Rusty Steel. Tin.
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### 7.3. Specific end use(s)

<b>Specific end use(s)</b>	The identified uses for this product are detailed in Section 1.2.
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## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

<b>Eye/face protection</b>	Wear eye protection.
<b>Hand protection</b>	Wear protective gloves made of the following material: Polyethylene. Neoprene. Nitrile rubber. Do NOT use Polyvinyl chloride (PVC). Rubber (natural, latex).
<b>Other skin and body protection</b>	Wear apron or protective clothing in case of contact.

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<b>Hygiene measures</b>	Provide eyewash station.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn.

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Colour</b>	Purple.
<b>Odour</b>	Sweetish.
<b>Odour threshold</b>	No information available.
<b>pH</b>	pH (concentrated solution): 3-5
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	> 100°C
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	-0.1 mm Hg @ 20°C
<b>Vapour density</b>	Not applicable.
<b>Solubility(ies)</b>	Slightly soluble in water.
<b>Partition coefficient</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	1200 cps @ °C
<b>Explosive properties</b>	No information available.
<b>Oxidising properties</b>	Not available.

#### 9.2. Other information

<b>Other information</b>	No information required.
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

<b>Reactivity</b>	Oxidising agents. Metal oxides.
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#### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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#### 10.3. Possibility of hazardous reactions

#### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	There are no known conditions that are likely to result in a hazardous situation.
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#### 10.5. Incompatible materials

<b>Materials to avoid</b>	Avoid contact with the following materials: Aluminium. Mild Steel Rusty Steel Copper Tin
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#### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	In case of fire gases can be released Carbon dioxide (CO <sub>2</sub> ). Nitrogen.
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**SAS222****SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Toxicological effects** No information available.

**Acute toxicity - oral**

**ATE oral (mg/kg)** 52,721.32006847

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)** 315.72300568

**Inhalation** Irritating to respiratory system.

**Ingestion** Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.

**Skin contact** Irritating to skin.

**Eye contact** May cause serious eye damage.

**SECTION 12: Ecological Information**

**Ecotoxicity** No data on possible environmental effects have been found.

**12.1. Toxicity**

**Ecotoxicity**

**12.2. Persistence and degradability**

**Persistence and degradability** The product is biodegradable.

**12.3. Bioaccumulative potential**

**Partition coefficient** No information available.

**12.4. Mobility in soil**

**Mobility** The product has poor water-solubility.

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

**12.6. Other adverse effects**

**Other adverse effects** Not available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**General information** Dispose of waste product or used containers in accordance with local regulations

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**SECTION 14: Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number**

## SAS222

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to** Not applicable.

**Annex II of MARPOL 73/78**

**and the IBC Code**

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
Dangerous Preparations Directive 1999/45/EC.  
Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

#### VOC content (2010/75/EC)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

Revision date 30/08/2016

SDS number 5289

## SAS222

### Hazard statements in full

H242 Heating may cause a fire.  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H331 Toxic if inhaled.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.





**SAFETY DATA SHEET**  
**SAS243**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS243  
Container size 10ml, 50ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified  
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335  
Environmental hazards Not Classified

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**SAS243**

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	2-hydroxypropyl methacrylate, Ethoxylated Bisphenol A Dimethacrylate, maleic acid, 1-Acetyl-2-phenylhydrazine
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**2.3. Other hazards****Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>Ethoxylated Bisphenol A Dimethacrylate</b>	<b>30-60%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>2-hydroxypropyl methacrylate</b>	<b>10-30%</b>
CAS number: 923-26-2	EC number: 213-090-3
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	

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<b><math>\alpha,\alpha</math>-dimethylbenzyl hydroperoxide</b>	<b>&lt;1%</b>
CAS number: 80-15-9	EC number: 201-254-7
<b>Classification</b>	
Org. Perox. E - H242	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
<b>maleic acid</b>	<b>&lt;1%</b>
CAS number: 110-16-7	EC number: 203-742-5
<b>Classification</b>	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>1-Acetyl-2-phenylhydrazine</b>	<b>&lt;1%</b>
CAS number: 114-83-0	
<b>Classification</b>	
Acute Tox. 3 - H301	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Titanium Dioxide</b>	<b>&lt;1%</b>
CAS number: 13463-67-7	
<b>Classification</b>	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.

###### Ingestion

Do not induce vomiting. Give plenty of water to drink. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

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**Skin contact** Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. Remove contaminated clothing.

**Eye contact** Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact** May cause sensitisation by skin contact.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Specific treatments** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

**Specific hazards** In case of fire: Toxic gases or vapours.

**Hazardous combustion products** Oxides of the following substances: Carbon dioxide (CO<sub>2</sub>). Nitrogen. Carbon monoxide (CO).

### 5.3. Advice for firefighters

**Protective actions during firefighting** Containers close to fire should be removed or cooled with water.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Use only in well-ventilated areas. Avoid contact with eyes and prolonged skin contact. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

**Hygiene measures:**

## SAS243

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store at temperatures not exceeding 38°C. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from sunlight. Do not use containers made of the following materials: Aluminium. Mild steel. Copper. Rusty Steel. Tin.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Titanium Dioxide

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

**Eye/face protection** Wear eye protection.

**Hand protection** Wear protective gloves made of the following material: Polyethylene. Neoprene. Nitrile rubber. Do NOT use Polyvinyl chloride (PVC). Rubber (natural, latex).

**Other skin and body protection** Wear apron or protective clothing in case of contact.

**Hygiene measures** Provide eyewash station.

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Colour</b>	Blue.
<b>Odour</b>	Sweetish.
<b>Odour threshold</b>	No information available.
<b>pH</b>	pH (concentrated solution): 3-5
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	> 100°C
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	-0.1 mm Hg @ 20°C
<b>Vapour density</b>	Not applicable.
<b>Solubility(ies)</b>	Miscible with the following materials: Organic solvents. Slightly soluble in water.
<b>Partition coefficient</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	1200-1800 cps @ °C

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**Explosive properties** No information available.

**Oxidising properties** Not available.

**9.2. Other information**

**Other information** No information required.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

**Reactivity** Oxidising agents. Metal oxides.

**10.2. Chemical stability**

**Stability** Stable at normal ambient temperatures and when used as recommended.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** Polymerises when heated.

**10.4. Conditions to avoid**

**Conditions to avoid** Avoid exposure to high temperatures or direct sunlight.

**10.5. Incompatible materials**

**Materials to avoid** Avoid contact with the following materials: Oxidising agents.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** In case of fire gases can be released Carbon dioxide (CO<sub>2</sub>).

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Toxicological effects** No information available.

**Acute toxicity - oral**

**ATE oral (mg/kg)** 17,078.83632074

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)** 307.37704918

**Inhalation** Irritation of nose, throat and airway.

**Ingestion** The product is considered to be a low hazard under normal conditions of use.

**Skin contact** Skin irritation should not occur when used as recommended.

**SECTION 12: Ecological Information**

**Ecotoxicity** There are no data on the ecotoxicity of this product.

**12.1. Toxicity****Ecotoxicity**

**Toxicity** Do not empty into drains/surface water/ground water

**12.2. Persistence and degradability**

**Persistence and degradability** The product is biodegradable.

**SAS243****12.3. Bioaccumulative potential****Bioaccumulative potential** Low**Partition coefficient** No information available.**12.4. Mobility in soil****Mobility** The product has poor water-solubility.**12.5. Results of PBT and vPvB assessment****Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.**12.6. Other adverse effects****Other adverse effects** Not available.**SECTION 13: Disposal considerations****13.1. Waste treatment methods****General information** Dispose of waste product or used containers in accordance with local regulations**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.**SECTION 14: Transport information****General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards****Environmentally hazardous substance/marine pollutant**

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code****Transport in bulk according to** Not applicable.**Annex II of MARPOL 73/78 and the IBC Code****SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

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### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the council of 18 December 2006 concerning the Registration, evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

### VOC content (2010/75/EC)

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5290
<b>Hazard statements in full</b>	<p>H242 Heating may cause a fire.</p> <p>H301 Toxic if swallowed.</p> <p>H302 Harmful if swallowed.</p> <p>H312 Harmful in contact with skin.</p> <p>H314 Causes severe skin burns and eye damage.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H318 Causes serious eye damage.</p> <p>H319 Causes serious eye irritation.</p> <p>H331 Toxic if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H411 Toxic to aquatic life with long lasting effects.</p>

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.





**SAFETY DATA SHEET**  
**SAS271**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS271  
Container size 10ml, 50ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified  
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335  
Environmental hazards Not Classified

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**SAS271**

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	Ethoxylated Bisphenol A Dimethacrylate, 2-hydroxypropyl methacrylate, maleic acid, 1-Acetyl-2-phenylhydrazine
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**2.3. Other hazards****Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>Ethoxylated Bisphenol A Dimethacrylate</b>	<b>30-60%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>2-hydroxypropyl methacrylate</b>	<b>10-30%</b>
CAS number: 923-26-2	
EC number: 213-090-3	
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	

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<b><math>\alpha,\alpha</math>-dimethylbenzyl hydroperoxide</b>	<b>&lt;1%</b>
CAS number: 80-15-9	EC number: 201-254-7
<b>Classification</b>	
Org. Perox. E - H242	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
<b>maleic acid</b>	<b>&lt;1%</b>
CAS number: 110-16-7	EC number: 203-742-5
<b>Classification</b>	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>1-Acetyl-2-phenylhydrazine</b>	<b>&lt;1%</b>
CAS number: 114-83-0	
<b>Classification</b>	
Acute Tox. 3 - H301	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Titanium Dioxide</b>	<b>&lt;1%</b>
CAS number: 13463-67-7	
<b>Classification</b>	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Do not induce vomiting.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. Remove contaminated clothing.

## SAS271

**Eye contact** Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact** Prolonged skin contact may cause redness and irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Specific treatments** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

**Specific hazards** In case of fire: Toxic gases or vapours.

**Hazardous combustion products** Oxides of the following substances: Carbon dioxide (CO<sub>2</sub>). Nitrogen. Carbon monoxide (CO).

### 5.3. Advice for firefighters

**Protective actions during firefighting** Containers close to fire should be removed or cooled with water.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Use only in well-ventilated areas. Avoid contact with eyes and prolonged skin contact. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

## SAS271

**Storage precautions** Store at temperatures not exceeding 38°C. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from sunlight. Do not use containers made of the following materials: Aluminium. Mild steel. Copper. Rusty Steel. Tin.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Titanium Dioxide

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

<b>Eye/face protection</b>	Wear eye protection.
<b>Hand protection</b>	Wear protective gloves made of the following material: Polyethylene. Neoprene. Nitrile rubber. Do NOT use Polyvinyl chloride (PVC). Rubber (natural, latex).
<b>Other skin and body protection</b>	Wear apron or protective clothing in case of contact.
<b>Hygiene measures</b>	Provide eyewash station.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Liquid.
<b>Colour</b>	Red.
<b>Odour</b>	Sweetish.
<b>Odour threshold</b>	No information available.
<b>pH</b>	pH (concentrated solution): 3-5
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	> 100°C
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	-0.1 mm Hg @ 20°C
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	~ 1.08
<b>Solubility(ies)</b>	Miscible with the following materials: Organic solvents. Slightly soluble in water.
<b>Partition coefficient</b>	No information available.
<b>Decomposition Temperature</b>	No information available.

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<b>Viscosity</b>	500 cps @ °C
<b>Explosive properties</b>	No information available.
<b>Oxidising properties</b>	Not available.

**9.2. Other information**

<b>Other information</b>	No information required.
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**SECTION 10: Stability and reactivity****10.1. Reactivity**

<b>Reactivity</b>	Oxidising agents. Metal oxides.
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**10.2. Chemical stability**

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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**10.3. Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	None known.
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**10.4. Conditions to avoid**

<b>Conditions to avoid</b>	Avoid exposure to high temperatures or direct sunlight.
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**10.5. Incompatible materials**

<b>Materials to avoid</b>	Avoid contact with the following materials: Aluminium. Mild Steel Rusty Steel Copper Tin
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**10.6. Hazardous decomposition products**

<b>Hazardous decomposition products</b>	In case of fire gases can be released Carbon dioxide (CO <sub>2</sub> ). Nitrogen.
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**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

<b>Toxicological effects</b>	No information available.
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**Acute toxicity - oral**

<b>ATE oral (mg/kg)</b>	18,703.97536163
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**Acute toxicity - inhalation**

<b>ATE inhalation (vapours mg/l)</b>	175.23364486
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<b>Inhalation</b>	Irritation of nose, throat and airway.
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<b>Ingestion</b>	The product is considered to be a low hazard under normal conditions of use.
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<b>Skin contact</b>	Skin irritation should not occur when used as recommended. Not a skin sensitiser.
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<b>Eye contact</b>	May irritate eyes.
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**SECTION 12: Ecological Information**

<b>Ecotoxicity</b>	Not regarded as dangerous for the environment.
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**12.1. Toxicity****Ecotoxicity**

<b>Toxicity</b>	Do not empty into drains/surface water/ground water
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**SAS271****12.2. Persistence and degradability****Persistence and degradability** The product is biodegradable.**12.3. Bioaccumulative potential****Bioaccumulative potential** Low**Partition coefficient** No information available.**12.4. Mobility in soil****Mobility** The product has poor water-solubility.**12.5. Results of PBT and vPvB assessment****Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.**12.6. Other adverse effects****Other adverse effects** Not available.**SECTION 13: Disposal considerations****13.1. Waste treatment methods****General information** Dispose of waste product or used containers in accordance with local regulations**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.**SECTION 14: Transport information****General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards****Environmentally hazardous substance/marine pollutant**

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code****Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**SECTION 15: Regulatory information**

## SAS271

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
 Dangerous Preparations Directive 1999/45/EC.  
 Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

#### VOC content (2010/75/EC)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

#### Revision date

30/08/2016

#### SDS number

5291

#### Hazard statements in full

H242 Heating may cause a fire.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H335 May cause respiratory irritation.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.





## SAFETY DATA SHEET

### SAS380 (Hardener)

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Product name SAS380 (Hardener)

Container size 25ml

##### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Adhesive.

##### 1.3. Details of the supplier of the safety data sheet

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

##### 1.4. Emergency telephone number

Emergency telephone +44 (0) 113 213 4300

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

##### 2.2. Label elements

###### Pictogram



Signal word Danger

Hazard statements  
H302+H332 Harmful if swallowed or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

## SAS380 (Hardener)

<b>Precautionary statements</b>	<p>P260 Do not breathe vapour/ spray.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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**Contains** Triethylene Glycol Dimercaptan, N(3-dimethylaminopropyl)-1,2-propylenediamine

### 2.3. Other hazards

#### Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>Triethylene Glycol Dimercaptan</b>	<b>60-100%</b>
CAS number: 14970-87-7	
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
<b>N(3-dimethylaminopropyl)-1,2-propylenediamine</b>	<b>10-30%</b>
CAS number: 10563-29-8	
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	

**SAS380 (Hardener)**

<b>Terphenyl</b>	<b>10-30%</b>
CAS number: 26140-60-3	
M factor (Acute) = 1	M factor (Chronic) = 1
<b>Classification</b>	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

The full text for all hazard statements is displayed in Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Do not induce vomiting unless under the direction of medical personnel. Give a few small glasses of water or milk to drink. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Wash clothing and clean shoes thoroughly before reuse. Get medical attention if symptoms are severe or persist.
<b>Eye contact</b>	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. If in doubt, get medical attention promptly.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>General information</b>	The product contains a sensitising substance.
<b>Inhalation</b>	May be harmful if inhaled.
<b>Ingestion</b>	Harmful if swallowed.
<b>Skin contact</b>	Causes burns. May cause sensitisation by skin contact. May cause skin sensitisation or allergic reactions in sensitive individuals.
<b>Eye contact</b>	Causes serious eye irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Specific treatments</b>	Treat symptomatically.
----------------------------	------------------------

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

**5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products** Oxides of carbon. Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Oxides of nitrogen.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**SECTION 6: Accidental release measures**

## SAS380 (Hardener)

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** For personal protection, see Section 8.

### 6.2. Environmental precautions

**Environmental precautions** To prevent release, place container with damaged side up. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Provide adequate ventilation. Eliminate all sources of ignition. Clear up spills immediately and dispose of waste safely. Absorb spillage with sand or other inert absorbent. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Do not eat, drink or smoke when using this product. Keep container tightly closed and at temperature not exceeding 23°C. Wash hands thoroughly after handling.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep container tightly closed and at temperature not exceeding 23°C. Keep container tightly sealed when not in use.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Terphenyl

Short-term exposure limit (15-minute): WEL 0.5 ppm 4.8 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

**Appropriate engineering controls** As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

**Eye/face protection** Wear chemical splash goggles.

**Other skin and body protection** Wear appropriate clothing to prevent skin contamination.

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

## SAS380 (Hardener)

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Strong.
pH	Not applicable.
Melting point	Not available.
Initial boiling point and range	>149°C @
Flash point	≥ 157°C COC (Cleveland open cup).
Evaporation rate	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	Not available.

#### 9.2. Other information

Other information	No information required.
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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#### 10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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#### 10.4. Conditions to avoid

Conditions to avoid	Keep away from heat, sparks and open flame.
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#### 10.5. Incompatible materials

Materials to avoid	Oxidising agents. Acids - oxidising. Acids - non-oxidising.
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#### 10.6. Hazardous decomposition products

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

ATE oral (mg/kg)	555.56
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##### Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	12.22
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### SECTION 12: Ecological Information

## SAS380 (Hardener)

**Ecotoxicity** Very toxic to aquatic life with long lasting effects. The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

### 12.1. Toxicity

**Ecotoxicity**

### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

### 12.3. Bioaccumulative potential

**Partition coefficient** Not available.

### 12.4. Mobility in soil

**Mobility** No data on possible environmental effects have been found.

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 1760

**UN No. (IMDG)** 1760

**UN No. (ICAO)** 1760

**UN No. (ADN)** 1760

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** CORROSIVE LIQUID, N.O.S.

**Proper shipping name (IMDG)** CORROSIVE LIQUID, N.O.S.

**Proper shipping name (ICAO)** CORROSIVE LIQUID, N.O.S.

**Proper shipping name (ADN)** CORROSIVE LIQUID, N.O.S.

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID classification code** C9

**ADR/RID label** 8

**SAS380 (Hardener)**

IMDG class	8
ICAO class/division	8
ADN class	8

**Transport labels****14.4. Packing group**

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant

No.

**14.6. Special precautions for user**

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code****SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>EU legislation</b>	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Dangerous Preparations Directive 1999/45/EC.
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VOC content (2010/75/EC)

**15.2. Chemical safety assessment****Inventories****EU - EINECS/ELINCS**

None of the ingredients are listed or exempt.

**US - TSCA 12(b) Export Notification**

None of the ingredients are listed or exempt.

**SECTION 16: Other information**

## SAS380 (Hardener)

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5294
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H332 Harmful if inhaled. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.





**SAFETY DATA SHEET**  
**SAS380 (Resin)**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS380 (Resin)

Container size 25ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

## SAS380 (Resin)

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	reaction product: bisphenol-A-(epichlorhydrin), Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
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### 2.3. Other hazards

#### Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>reaction product: bisphenol-A-(epichlorhydrin)</b>	<b>60-100%</b>
CAS number: 25068-38-6	EC number: 500-033-5
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol</b>	<b>5-10%</b>
CAS number: 9003-36-5	EC number: 500-006-8
<b>Classification</b> Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.

## SAS380 (Resin)

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. Wash clothing and clean shoes thoroughly before reuse. Get medical attention if symptoms are severe or persist after washing.

**Eye contact** Get medical attention if irritation persists after washing.

### **4.2. Most important symptoms and effects, both acute and delayed**

**Inhalation** May cause respiratory irritation.

**Ingestion** No specific symptoms known.

**Skin contact** May cause an allergic skin reaction. Irritating to skin.

**Eye contact** Causes eye irritation.

### **4.3. Indication of any immediate medical attention and special treatment needed**

**Notes for the doctor** Treat symptomatically.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

### **5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products** Oxides of carbon. Aldehydes Organic acids Acrid smoke or fumes.

### **5.3. Advice for firefighters**

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use suitable respiratory protection if ventilation is inadequate. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

### **6.2. Environmental precautions**

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses. To prevent release, place container with damaged side up.

### **6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up** If leakage cannot be stopped, evacuate area. Provide adequate ventilation. Absorb spillage with sand or other inert absorbent. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

### **6.4. Reference to other sections**

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

## SAS380 (Resin)

**Usage precautions** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Do not eat, drink or smoke when using this product.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Do not store near heat sources or expose to high temperatures. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

**Appropriate engineering controls** As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

**Eye/face protection** Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear chemical splash goggles.

**Other skin and body protection** Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Respiratory protection** Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Viscous liquid.
<b>Colour</b>	Clear.
<b>Odour</b>	Mild.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	260°C/500°F @
<b>Flash point</b>	≥ 249°C/480°F PMCC (Pensky-Martens closed cup).
<b>Evaporation rate</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	Not available.

### 9.2. Other information

**Other information** None.

## SECTION 10: Stability and reactivity

## SAS380 (Resin)

### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Will not polymerise.

### 10.4. Conditions to avoid

**Conditions to avoid** Keep away from heat, sparks and open flame.

### 10.5. Incompatible materials

**Materials to avoid** Oxidising agents. Strong acids. Amines.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Oxides of carbon. Aldehydes. Organic acids

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** No data recorded.

## SECTION 12: Ecological Information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

### 12.1. Toxicity

**Ecotoxicity**

**Toxicity** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability** No data available.

### 12.3. Bioaccumulative potential

**Partition coefficient** Not available.

### 12.4. Mobility in soil

**Mobility** No information available

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

## SECTION 14: Transport information

## SAS380 (Resin)

### 14.1. UN number

3082

### 14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Epoxy Resin Number average MWC <= 700)

### 14.3. Transport hazard class(es)

9

Transport labels



### 14.4. Packing group

III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-A, S-F

Emergency Action Code 32

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Dangerous Preparations Directive 1999/45/EC.

VOC content (2010/75/EC)

### 15.2. Chemical safety assessment

## SAS380 (Resin)

### Inventories

#### EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

### SECTION 16: Other information

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5293
<b>Hazard statements in full</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.



**SAFETY DATA SHEET**  
**SAS460 (Hardener)**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name** SAS460 (Hardener)  
**Container size** 25ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses** Two-component, epoxy-based adhesive.

**1.3. Details of the supplier of the safety data sheet**

**Supplier** Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

**Emergency telephone** +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

**Physical hazards** Not Classified  
**Health hazards** Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317  
**Environmental hazards** Aquatic Chronic 2 - H411

**2.2. Label elements**

**Pictogram**



**Signal word** Danger

**Hazard statements** H302+H332 Harmful if swallowed or if inhaled.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.



## SAS460 (Hardener)

<b>Precautionary statements</b>	<p>P260 Do not breathe vapour/ spray.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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**Contains** Triethylene Glycol Dimercaptan, N(3-dimethylaminopropyl)-1,2-propylenediamine

### 2.3. Other hazards

#### Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>Triethylene Glycol Dimercaptan</b>	<b>60-100%</b>
CAS number: 14970-87-7	
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
<b>N(3-dimethylaminopropyl)-1,2-propylenediamine</b>	<b>10-30%</b>
CAS number: 10563-29-8	
<b>Classification</b>	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	

**SAS460 (Hardener)**

<b>Terphenyl</b>	<b>10-30%</b>
CAS number: 26140-60-3	
M factor (Acute) = 1	M factor (Chronic) = 1
<b>Classification</b>	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

The full text for all hazard statements is displayed in Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Do not induce vomiting unless under the direction of medical personnel. Give a few small glasses of water or milk to drink. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Wash clothing and clean shoes thoroughly before reuse. Get medical attention if symptoms are severe or persist.
<b>Eye contact</b>	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. If in doubt, get medical attention promptly.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>General information</b>	The product contains a sensitising substance.
<b>Inhalation</b>	May be harmful if inhaled.
<b>Ingestion</b>	Harmful if swallowed.
<b>Skin contact</b>	Causes burns. May cause sensitisation by skin contact. May cause skin sensitisation or allergic reactions in sensitive individuals.
<b>Eye contact</b>	Causes serious eye irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Specific treatments</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

**5.2. Special hazards arising from the substance or mixture**

**Hazardous combustion products** Oxides of carbon. Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Oxides of nitrogen.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**SECTION 6: Accidental release measures**

## SAS460 (Hardener)

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** For personal protection, see Section 8.

### 6.2. Environmental precautions

**Environmental precautions** To prevent release, place container with damaged side up. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Provide adequate ventilation. Eliminate all sources of ignition. Clear up spills immediately and dispose of waste safely. Absorb spillage with sand or other inert absorbent. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Do not eat, drink or smoke when using this product. Keep container tightly closed and at temperature not exceeding 23°C. Wash hands thoroughly after handling.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep container tightly closed and at temperature not exceeding 23°C. Keep container tightly sealed when not in use.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Terphenyl

Short-term exposure limit (15-minute): WEL 0.5 ppm 4.8 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

**Appropriate engineering controls** As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

**Eye/face protection** Wear chemical splash goggles.

**Other skin and body protection** Wear appropriate clothing to prevent skin contamination.

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

## SAS460 (Hardener)

### SECTION 9: Physical and Chemical Properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Strong.
pH	Not applicable.
Melting point	Not available.
Initial boiling point and range	>149°C @
Flash point	≥ 157°C COC (Cleveland open cup).
Evaporation rate	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	Not available.

#### 9.2. Other information

Other information No information required.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

#### 10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise.

#### 10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks and open flame.

#### 10.5. Incompatible materials

Materials to avoid Oxidising agents. Acids - oxidising. Acids - non-oxidising.

#### 10.6. Hazardous decomposition products

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

ATE oral (mg/kg) 555.5555556

##### Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 12.2222222

### SECTION 12: Ecological Information

## SAS460 (Hardener)

**Ecotoxicity** Very toxic to aquatic life with long lasting effects. The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

### 12.1. Toxicity

**Ecotoxicity**

### 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

### 12.3. Bioaccumulative potential

**Partition coefficient** Not available.

### 12.4. Mobility in soil

**Mobility** No data on possible environmental effects have been found.

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 1760

**UN No. (IMDG)** 1760

**UN No. (ICAO)** 1760

**UN No. (ADN)** 1760

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** CORROSIVE LIQUID, N.O.S.

**Proper shipping name (IMDG)** CORROSIVE LIQUID, N.O.S.

**Proper shipping name (ICAO)** CORROSIVE LIQUID, N.O.S.

**Proper shipping name (ADN)** CORROSIVE LIQUID, N.O.S.

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID classification code** C9

**ADR/RID label** 8

**SAS460 (Hardener)**

IMDG class	8
ICAO class/division	8
ADN class	8

**Transport labels****14.4. Packing group**

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

**14.5. Environmental hazards**

Environmentally hazardous substance/marine pollutant

No.

**14.6. Special precautions for user**

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2X
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code****SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>EU legislation</b>	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Dangerous Preparations Directive 1999/45/EC.
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VOC content (2010/75/EC)

**15.2. Chemical safety assessment****Inventories****EU - EINECS/ELINCS**

None of the ingredients are listed or exempt.

**US - TSCA 12(b) Export Notification**

None of the ingredients are listed or exempt.

**SECTION 16: Other information**

## SAS460 (Hardener)

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5301
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H332 Harmful if inhaled. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.



**SAFETY DATA SHEET**  
**SAS460 (Resin)**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS460 (Resin)

Container size 25ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Two-component, epoxy-based adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards Aquatic Chronic 2 - H411

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.



## SAS460 (Resin)

<b>Precautionary statements</b>	P261 Avoid breathing vapour/ spray.
	P264 Wash contaminated skin thoroughly after handling.
	P272 Contaminated work clothing should not be allowed out of the workplace.
	P273 Avoid release to the environment.
	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P302+P352 IF ON SKIN: Wash with plenty of water.
	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P321 Specific treatment (see medical advice on this label).
	P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
	P337+P313 If eye irritation persists: Get medical advice/ attention.
	P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P501 Dispose of contents/ container in accordance with national regulations.

<b>Contains</b>	Epoxy Resin (Epichlorohydrin, Bisphenol A), Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
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### 2.3. Other hazards

#### Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>Epoxy Resin (Epichlorohydrin, Bisphenol A)</b>	<b>60-100%</b>
CAS number: 25085-99-8	
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
<b>Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol</b>	<b>5-10%</b>
CAS number: 9003-36-5                      EC number: 500-006-8	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	

The full text for all hazard statements is displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention if symptoms are severe or persist.
<b>Ingestion</b>	Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.

## SAS460 (Resin)

**Skin contact** Remove contaminated clothing immediately and wash skin with soap and water. Wash clothing and clean shoes thoroughly before reuse. Get medical attention if symptoms are severe or persist after washing.

**Eye contact** Get medical attention if irritation persists after washing.

### 4.2. Most important symptoms and effects, both acute and delayed

**Inhalation** May cause respiratory irritation.

**Ingestion** No specific symptoms known.

**Skin contact** May cause an allergic skin reaction. Irritating to skin.

**Eye contact** Causes eye irritation.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes for the doctor** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Water spray, foam, dry powder or carbon dioxide.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products** Oxides of carbon. Aldehydes Organic acids Acrid smoke or fumes.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Use suitable respiratory protection if ventilation is inadequate. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate.

### 6.2. Environmental precautions

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses. To prevent release, place container with damaged side up.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** If leakage cannot be stopped, evacuate area. Provide adequate ventilation. Absorb spillage with sand or other inert absorbent. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

## SAS460 (Resin)

**Usage precautions** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin, eyes and clothing. Do not breathe gas, fume, vapours or spray. Do not eat, drink or smoke when using this product.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Do not store near heat sources or expose to high temperatures. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

**Appropriate engineering controls** As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

**Eye/face protection** Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Wear chemical splash goggles.

**Other skin and body protection** Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Respiratory protection** Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Viscous liquid.
<b>Colour</b>	Clear.
<b>Odour</b>	Mild.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	260°C/500°F @
<b>Flash point</b>	≥ 249°C/480°F PMCC (Pensky-Martens closed cup).
<b>Evaporation rate</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	Not available.

### 9.2. Other information

**Other information** None.

## SECTION 10: Stability and reactivity

## SAS460 (Resin)

### 10.1. Reactivity

**Reactivity** There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Will not polymerise.

### 10.4. Conditions to avoid

**Conditions to avoid** Keep away from heat, sparks and open flame.

### 10.5. Incompatible materials

**Materials to avoid** Oxidising agents. Strong acids. Amines.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Oxides of carbon. Aldehydes. Organic acids

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** No data recorded.

## SECTION 12: Ecological Information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

### 12.1. Toxicity

**Ecotoxicity**

**Toxicity** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability** No data available.

### 12.3. Bioaccumulative potential

**Partition coefficient** Not available.

### 12.4. Mobility in soil

**Mobility** No information available

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

## SECTION 14: Transport information

## SAS460 (Resin)

### 14.1. UN number

3082

### 14.2. UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (Epoxy Resin Number average MWC <= 700)

### 14.3. Transport hazard class(es)

9

Transport labels



### 14.4. Packing group

III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-A, S-F

Emergency Action Code 32

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU legislation

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Dangerous Preparations Directive 1999/45/EC.

VOC content (2010/75/EC)

### 15.2. Chemical safety assessment

## SAS460 (Resin)

### Inventories

#### EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

#### US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

### SECTION 16: Other information

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5302
<b>Hazard statements in full</b>	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.



**SAFETY DATA SHEET**  
**SAS572**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS572  
Container size 50ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified  
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335 STOT SE 3 - H335 STOT SE 3 - H335  
Environmental hazards Not Classified

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**SAS572**

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	Ethoxylated Bisphenol A Dimethacrylate, 2-hydroxypropyl methacrylate, $\alpha,\alpha$ -dimethylbenzyl hydroperoxide, 1-Acetyl-2-phenylhydrazine
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**2.3. Other hazards****Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>Ethoxylated Bisphenol A Dimethacrylate</b>	<b>30-60%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Polyethylene Glycol 200 Dimethacrylate</b>	<b>10-30%</b>
CAS number: 26570-48-9	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
<b>2-hydroxypropyl methacrylate</b>	<b>5-10%</b>
CAS number: 923-26-2	EC number: 213-090-3
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	



**SAS572**

<b><math>\alpha,\alpha</math>-dimethylbenzyl hydroperoxide</b>	<b>1-5%</b>
CAS number: 80-15-9	EC number: 201-254-7
<b>Classification</b>	
Org. Perox. E - H242	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
<b>1-Acetyl-2-phenylhydrazine</b>	<b>&lt;1%</b>
CAS number: 114-83-0	
<b>Classification</b>	
Acute Tox. 3 - H301	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Titanium Dioxide</b>	<b>&lt;1%</b>
CAS number: 13463-67-7	
<b>Classification</b>	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Get medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if symptoms are severe or persist.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Skin contact</b>	May cause sensitisation by skin contact.
<b>Eye contact</b>	Irritating. Conjunctivitis, irritation, tearing.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Notes for the doctor</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures**

## SAS572

### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products** Oxides of carbon. Oxides of nitrogen. Irritating gases or vapours.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin and eyes. Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Small Spillages: Wipe up with paper towels and place in container for disposal. Large Spillages: Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Use only in well-ventilated areas. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store at temperatures between 8°C and 21°C. Keep only in the original container.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### **Titanium Dioxide**

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

**Eye/face protection** Wear eye protection.

**Hand protection** Wear protective gloves made of the following material: Nitrile rubber.

**SAS572**

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn.

<b>SECTION 9: Physical and Chemical Properties</b>
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**9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Paste.
<b>Colour</b>	White.
<b>Odour</b>	Mild.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 3-6
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	> 100°C
<b>Evaporation rate</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	Not available. <0.5 mm Hg @ °C
<b>Vapour density</b>	Not available.
<b>Solubility(ies)</b>	No information available.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	20000 cps
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

**9.2. Other information**

<b>Other information</b>	None.
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<b>SECTION 10: Stability and reactivity</b>
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**10.1. Reactivity**

<b>Reactivity</b>	Strong acids. Strong oxidants
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**10.2. Chemical stability**

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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**10.3. Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	None known.
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**10.4. Conditions to avoid**

<b>Conditions to avoid</b>	There are no known conditions that are likely to result in a hazardous situation.
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**10.5. Incompatible materials**

**SAS572**

**Materials to avoid** None known.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** Irritating organic vapours

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Toxicological effects** No information available.

**Acute toxicity - oral**

**ATE oral (mg/kg)** 27,886.19932074

**Acute toxicity - dermal**

**ATE dermal (mg/kg)** 109,890.10989011

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)** 299.7002997

**Inhalation** May cause respiratory system irritation.

**Ingestion** The product is considered to be a low hazard under normal conditions of use.

**Skin contact** May cause sensitisation by skin contact.

**Eye contact** Risk of serious damage to eyes.

**SECTION 12: Ecological Information**

**Ecotoxicity** There are no data on the ecotoxicity of this product.

**12.1. Toxicity**

**Ecotoxicity**

**Toxicity** Low

**12.2. Persistence and degradability**

**Persistence and degradability** There are no data on the degradability of this product.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

**12.4. Mobility in soil**

**Mobility** No information available

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

**12.6. Other adverse effects**

**Other adverse effects** Not available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**SAS572**

<b>General information</b>	Dispose of waste product or used containers in accordance with local regulations
<b>Disposal methods</b>	Dispose of waste product or used containers in accordance with local regulations
<b>Waste class</b>	08 04 09 waste adhesives and sealants containing organic solvents or other dangerous substances.

**SECTION 14: Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards****Environmentally hazardous substance/marine pollutant**

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the council of 18 December 2006 concerning the Registration, evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

**VOC content (2010/75/EC)****15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

**SECTION 16: Other information**

## SAS572

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5304
<b>Hazard statements in full</b>	H242 Heating may cause a fire. H301 Toxic if swallowed. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.



**SAFETY DATA SHEET**  
**SAS574**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS574

Container size 50ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335 STOT SE 3 - H335 STOT SE 3 - H335

Environmental hazards Not Classified

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**SAS574**

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	Ethoxylated Bisphenol A Dimethacrylate, 2-hydroxypropyl methacrylate, $\alpha,\alpha$ -dimethylbenzyl hydroperoxide, 1-Acetyl-2-phenylhydrazine
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**2.3. Other hazards****Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>Ethoxylated Bisphenol A Dimethacrylate</b>	<b>30-60%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Polyethylene Glycol 200 Dimethacrylate</b>	<b>10-30%</b>
CAS number: 26570-48-9	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
<b>2-hydroxypropyl methacrylate</b>	<b>10-30%</b>
CAS number: 923-26-2	EC number: 213-090-3
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	



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<b><math>\alpha,\alpha</math>-dimethylbenzyl hydroperoxide</b>	<b>1-5%</b>
CAS number: 80-15-9	EC number: 201-254-7
<b>Classification</b>	
Org. Perox. E - H242	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
<b>1-Acetyl-2-phenylhydrazine</b>	<b>&lt;1%</b>
CAS number: 114-83-0	
<b>Classification</b>	
Acute Tox. 3 - H301	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>Titanium Dioxide</b>	<b>&lt;1%</b>
CAS number: 13463-67-7	
<b>Classification</b>	
Not Classified	

The full text for all hazard statements is displayed in Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Get medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if symptoms are severe or persist.

**4.2. Most important symptoms and effects, both acute and delayed**

<b>Skin contact</b>	May cause sensitisation by skin contact.
<b>Eye contact</b>	Irritating. Conjunctivitis, irritation, tearing.

**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Notes for the doctor</b>	Treat symptomatically.
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**SECTION 5: Firefighting measures**

## SAS574

### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products** Oxides of carbon. Oxides of nitrogen. Irritating gases or vapours. Oxides of sulphur.

### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin and eyes. Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Small Spillages: Wipe up with paper towels and place in container for disposal. Large Spillages: Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Use only in well-ventilated areas. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store at temperatures between 8°C and 21°C. Keep only in the original container.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Titanium Dioxide

Long-term exposure limit (8-hour TWA): WEL 4 mg/m<sup>3</sup> respirable dust

Long-term exposure limit (8-hour TWA): WEL 10 mg/m<sup>3</sup> inhalable dust

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

**Eye/face protection** Wear eye protection.

**Hand protection** Wear protective gloves made of the following material: Nitrile rubber.

**SAS574**

**Respiratory protection** If ventilation is inadequate, suitable respiratory protection must be worn.

<b>SECTION 9: Physical and Chemical Properties</b>
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**9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Paste.
<b>Colour</b>	Orange.
<b>Odour</b>	Mild.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	>150°C @
<b>Flash point</b>	> 100°C
<b>Evaporation rate</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Vapour density</b>	Not available.
<b>Solubility(ies)</b>	Slightly soluble in water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	50000
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

**9.2. Other information**

<b>Other information</b>	None.
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<b>SECTION 10: Stability and reactivity</b>
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**10.1. Reactivity**

<b>Reactivity</b>	Strong acids. Strong oxidants
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**10.2. Chemical stability**

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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**10.3. Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	The following materials may react with the product: Strong acids. Strong oxidants
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**10.4. Conditions to avoid**

<b>Conditions to avoid</b>	There are no known conditions that are likely to result in a hazardous situation.
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**10.5. Incompatible materials**

**SAS574**

**Materials to avoid**                      None known.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products**                      Irritating organic vapours

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Toxicological effects**                      No information available.

**Acute toxicity - oral**

**ATE oral (mg/kg)**                      26,084.49278469

**Acute toxicity - dermal**

**ATE dermal (mg/kg)**                      110,000.0

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)**                      300.0

**Inhalation**                      May cause respiratory system irritation.

**Ingestion**                      The product is considered to be a low hazard under normal conditions of use.

**Skin contact**                      May cause sensitisation by skin contact.

**Eye contact**                      Irritating to eyes.

**SECTION 12: Ecological Information**

**Ecotoxicity**                      There are no data on the ecotoxicity of this product.

**12.1. Toxicity**

**Ecotoxicity**

**Toxicity**                      Low

**12.2. Persistence and degradability**

**Persistence and degradability**                      There are no data on the degradability of this product.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential**                      No data available on bioaccumulation.

**Partition coefficient**                      Not available.

**12.4. Mobility in soil**

**Mobility**                      Not considered mobile.

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment**                      This product does not contain any substances classified as PBT or vPvB.

**12.6. Other adverse effects**

**Other adverse effects**                      Not available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**SAS574**

<b>General information</b>	Dispose of waste product or used containers in accordance with local regulations
<b>Disposal methods</b>	Dispose of waste product or used containers in accordance with local regulations
<b>Waste class</b>	08 04 09 waste adhesives and sealants containing organic solvents or other dangerous substances.

**SECTION 14: Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards****Environmentally hazardous substance/marine pollutant**

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the council of 18 December 2006 concerning the Registration, evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

**VOC content (2010/75/EC)****15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

**SECTION 16: Other information**

## SAS574

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5305
<b>Hazard statements in full</b>	H242 Heating may cause a fire. H301 Toxic if swallowed. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

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**SAFETY DATA SHEET**  
**SAS590**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS590

Container size 100ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Sealant.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

**2.2. Label elements**

Hazard statements EUH208 Contains Methyltris(2-butanonoxim)silan, N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.

**2.3. Other hazards**

Other hazards

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

## SAS590

<b>N-(3-(trimethoxysilyl)propyl)ethylenediamine</b>	<b>&lt;1%</b>
CAS number: 1760-24-3	
<b>Classification</b>	
Acute Tox. 4 - H332	
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
<b>Methyltris(2-butanonoxim)silan</b>	<b>1-2%</b>
CAS number: 22984-54-9	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
<b>Butan-2-on-o,o',o''-(vinylsilylidyn)trioxim</b>	<b>&lt;1%</b>
CAS number: 2224-33-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing.
<b>Ingestion</b>	Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Remove contaminated clothing. Get medical attention promptly if symptoms occur after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Get medical attention.

##### 4.2. Most important symptoms and effects, both acute and delayed

<b>General information</b>	Treat symptomatically.
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##### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Specific treatments</b>	Treat symptomatically.
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#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with the following media: Dry chemicals. Foam. Water spray. Carbon dioxide (CO <sub>2</sub> ).
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##### 5.2. Special hazards arising from the substance or mixture

<b>Hazardous combustion products</b>	Toxic gases or vapours.
--------------------------------------	-------------------------

##### 5.3. Advice for firefighters



## SAS590

**Protective actions during firefighting** Containers close to fire should be removed or cooled with water.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** For personal protection, see Section 8.

#### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Collect and place in suitable waste disposal containers and seal securely.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation.

**Advice on general occupational hygiene** Good personal hygiene procedures should be implemented.

**Hygiene measures:**

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep container tightly closed, in a cool, well ventilated place. Protect from moisture. Protect from sunlight.

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

#### 8.2. Exposure controls

**Protective equipment**



**Eye/face protection** Wear tight-fitting, chemical splash goggles or face shield.

**Hand protection** Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Polyvinyl chloride (PVC).

**Hygiene measures** No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

**Respiratory protection** Respiratory protection not required.

### SECTION 9: Physical and Chemical Properties

**SAS590****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Coloured paste.
<b>Colour</b>	Various colours.
<b>Odour</b>	Characteristic.
<b>Odour threshold</b>	Not available.
<b>pH</b>	No information available.
<b>Melting point</b>	No information available.
<b>Initial boiling point and range</b>	No information available.
<b>Flash point</b>	> 93°C
<b>Evaporation rate</b>	No information available.
<b>Upper/lower flammability or explosive limits</b>	No information available.
<b>Vapour pressure</b>	No information available.
<b>Vapour density</b>	No information available.
<b>Solubility(ies)</b>	No information available.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Viscosity</b>	Highly Viscous
<b>Explosive properties</b>	Not applicable.
<b>Oxidising properties</b>	Not applicable.

**9.2. Other information**

<b>Other information</b>	None.
<b>Volatile organic compound</b>	This product contains a maximum VOC content of <30 g/l.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
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**10.2. Chemical stability**

<b>Stability</b>	Stable at normal ambient temperatures. Stable under the prescribed storage conditions.
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**10.3. Possibility of hazardous reactions**

<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, no hazardous reactions will occur.
---	--

**10.4. Conditions to avoid**

<b>Conditions to avoid</b>	Avoid heat. Avoid exposure to high temperatures or direct sunlight.
----------------------------	---

**10.5. Incompatible materials**

<b>Materials to avoid</b>	Avoid contact with the following materials: Strong oxidising agents. Water, moisture. Strong acids.
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**SAS590****10.6. Hazardous decomposition products**

**Hazardous decomposition products** In combustion emits toxic fumes Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Nitrogen.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Toxicological effects** No information available.

**Skin contact** Slightly irritating. Redness.

**Eye contact** Irritating. Redness.

**SECTION 12: Ecological Information**

**Ecotoxicity** No negative effects on the aquatic environment are known.

**12.1. Toxicity**

**Ecotoxicity**

**Toxicity** Do not empty into drains/surface water/ground water

**12.2. Persistence and degradability**

**Persistence and degradability** The product is not biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** The product is not bioaccumulating.

**Partition coefficient** No information available.

**12.4. Mobility in soil**

**Mobility** The product is insoluble in water.

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

**12.6. Other adverse effects**

**Other adverse effects** Not applicable.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**General information** Dispose of waste product or used containers in accordance with local regulations

**Waste class** 08 04 09 waste adhesives and sealants containing organic solvents or other dangerous substances. 09 04 99

**SECTION 14: Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

**SAS590**

Not applicable.

**14.3. Transport hazard class(es)**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards****Environmentally hazardous substance/marine pollutant**

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU legislation**

Regulation (EC) No 1907/2006 of the European Parliament and of the council of 18 December 2006 concerning the Registration, evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

**VOC content (2010/75/EC)****15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

**SECTION 16: Other information****Revision date**

30/08/2016

**SDS number**

5306

**Hazard statements in full**

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

EUH208 Contains Methyltris(2-butanonoxim)silan, N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction.

## SAS590

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

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**SAFETY DATA SHEET**  
**SAS601**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS601

Container size 50ml

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel: +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335 STOT SE 3 - H335 STOT SE 3 - H335

Environmental hazards Not Classified

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

## SAS601

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/ doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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<b>Contains</b>	Ethoxylated Bisphenol A Dimethacrylate, 2-hydroxypropyl methacrylate, $\alpha,\alpha$ -dimethylbenzyl hydroperoxide, maleic acid, 1-Acetyl-2-phenylhydrazine
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### 2.3. Other hazards

#### Other hazards

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>Ethoxylated Bisphenol A Dimethacrylate</b>	<b>30-60%</b>
CAS number: 41637-38-1	
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>2-hydroxypropyl methacrylate</b>	<b>10-30%</b>
CAS number: 923-26-2	
EC number: 213-090-3	
<b>Classification</b>	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	

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<b><math>\alpha,\alpha</math>-dimethylbenzyl hydroperoxide</b>	<b>1-5%</b>
CAS number: 80-15-9	EC number: 201-254-7
<b>Classification</b>	
Org. Perox. E - H242	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 3 - H331	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
STOT SE 3 - H335	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
<b>maleic acid</b>	<b>&lt;1%</b>
CAS number: 110-16-7	EC number: 203-742-5
<b>Classification</b>	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>1-Acetyl-2-phenylhydrazine</b>	<b>&lt;1%</b>
CAS number: 114-83-0	
<b>Classification</b>	
Acute Tox. 3 - H301	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
STOT SE 3 - H335	

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give plenty of water to drink. Do not induce vomiting.
<b>Skin contact</b>	Wash skin thoroughly with soap and water. Get medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water. Get medical attention if symptoms are severe or persist. Continue to rinse for at least 10 minutes.

##### 4.2. Most important symptoms and effects, both acute and delayed

<b>Skin contact</b>	Redness.
<b>Eye contact</b>	Conjunctivitis, irritation, tearing.

##### 4.3. Indication of any immediate medical attention and special treatment needed



# SAS601

**Notes for the doctor**                      Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media**    Extinguish with the following media: Carbon dioxide (CO<sub>2</sub>). Foam. Alcohol-resistant foam. Water spray.

**Unsuitable extinguishing media**        None known.

### 5.2. Special hazards arising from the substance or mixture

**Hazardous combustion products**        Oxides of carbon. Oxides of nitrogen. Sulphur.

### 5.3. Advice for firefighters

**Protective actions during firefighting**        Containers close to fire should be removed or cooled with water.

**Special protective equipment for firefighters**    Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**                      Avoid contact with skin and eyes. Provide adequate ventilation.

### 6.2. Environmental precautions

**Environmental precautions**        Avoid discharge into drains or watercourses or onto the ground.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**                      Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely.

### 6.4. Reference to other sections

**Reference to other sections**    For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions**                      Use only in well-ventilated areas. Do not eat, drink or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

**Hygiene measures:**

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions**                      Store at temperatures between 8°C and 21°C. Store in tightly-closed, original container in a well-ventilated place.

### 7.3. Specific end use(s)

**Specific end use(s)**                      The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

### 8.2. Exposure controls

**SAS601**

<b>Eye/face protection</b>	Wear eye protection.
<b>Hand protection</b>	To protect hands from chemicals, gloves should comply with European Standard EN374.
<b>Other skin and body protection</b>	Wear apron or protective clothing in case of contact.
<b>Respiratory protection</b>	If ventilation is inadequate, suitable respiratory protection must be worn.

**SECTION 9: Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Liquid.
<b>Colour</b>	Yellow.
<b>Odour</b>	Sweetish.
<b>Odour threshold</b>	Not available.
<b>pH</b>	pH (concentrated solution): 3-5
<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	Not available.
<b>Flash point</b>	> 100°C
<b>Evaporation rate</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	Not applicable.
<b>Vapour pressure</b>	-0.1 mm Hg @ 20°C
<b>Vapour density</b>	Not available.
<b>Relative density</b>	~ 1.08
<b>Solubility(ies)</b>	Slightly soluble in water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	400-800 cps @ °C
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

**9.2. Other information**

<b>Other information</b>	None.
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**SECTION 10: Stability and reactivity****10.1. Reactivity**

<b>Reactivity</b>	Strong acids. Strong oxidising agents.
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**10.2. Chemical stability**

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
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**10.3. Possibility of hazardous reactions**

**SAS601**

**Possibility of hazardous reactions** Under normal conditions of storage and use, no hazardous reactions will occur.

**10.4. Conditions to avoid**

**Conditions to avoid** There are no known conditions that are likely to result in a hazardous situation.

**10.5. Incompatible materials**

**Materials to avoid** None known.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** In case of fire Other toxic gases and vapours

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity - oral**

**ATE oral (mg/kg)** 12,591.96791197

**Acute toxicity - dermal**

**ATE dermal (mg/kg)** 110,000.0

**Acute toxicity - inhalation**

**ATE inhalation (vapours mg/l)** 300.0

**Inhalation** Irritating to respiratory system.

**Ingestion** May cause irritation.

**Skin contact** Irritating.

**Eye contact** Risk of serious damage to eyes.

**SECTION 12: Ecological Information**

**Ecotoxicity** There are no data on the ecotoxicity of this product.

**12.1. Toxicity****Ecotoxicity**

**Toxicity** Do not empty into drains/surface water/ground water

**12.2. Persistence and degradability**

**Persistence and degradability** There are no data on the degradability of this product.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

**12.4. Mobility in soil**

**Mobility** Not considered mobile.

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

**12.6. Other adverse effects**

## SAS601

**Other adverse effects** Not available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** Dispose of waste product or used containers in accordance with local regulations

**Disposal methods** Dispose of waste product or used containers in accordance with local regulations

**Waste class** 08 04 09 waste adhesives and sealants containing organic solvents or other dangerous substances.

### SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

No transport warning sign required.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**  
No.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU legislation** Regulation (EC) No 1907/2006 of the European Parliament and of the council of 18 December 2006 concerning the Registration, evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

**VOC content (2010/75/EC)**

#### 15.2. Chemical safety assessment

## SAS601

No chemical safety assessment has been carried out.

### SECTION 16: Other information

<b>Revision date</b>	30/08/2016
<b>SDS number</b>	5310
<b>Hazard statements in full</b>	H242 Heating may cause a fire. H301 Toxic if swallowed. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure. H411 Toxic to aquatic life with long lasting effects.

**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product.

**WARRANTY:** All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.



**SAFETY DATA SHEET**  
**SAS4950**

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product name SAS4950

Container size 20g

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Identified uses Adhesive.

**1.3. Details of the supplier of the safety data sheet**

Supplier Nina Works,  
Gelderd Road,  
Leeds  
LS12 6NA  
Tel; +44 (0) 113 213 4300

**1.4. Emergency telephone number**

Emergency telephone +44 (0) 113 213 4300

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification**

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT SE 3 - H335 STOT SE 3 - H335

Environmental hazards Not Classified

**2.2. Label elements**

**Pictogram**



Signal word Warning

Hazard statements H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

**SAS4950**

<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>
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**Supplemental label information** EUH202 Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children.

**Contains** ethyl 2-cyanoacrylate

**2.3. Other hazards****SECTION 3: Composition/information on ingredients****3.2. Mixtures**

<b>ethyl 2-cyanoacrylate</b>	<b>60-100%</b>
CAS number: 7085-85-0	EC number: 230-391-5
<b>Classification</b>	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
STOT SE 3 - H335	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**SECTION 4: First aid measures****4.1. Description of first aid measures**

<b>General information</b>	Get medical advice/attention if you feel unwell.
<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it almost impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).
<b>Skin contact</b>	If adhesive bonding occurs, do not force skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm soapy water. Cyanoacrylates give off heat on solidification. In rare cases a large a large drop will generate enough heat to cause a burn. Burns should be treated normally after the adhesive has been removed from the skin if lips are accidentally stuck together apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull apart with direct opposing action.

**SAS4950**

**Eye contact** If the eye is bonded closed, release eyelashes with warm water by covering with wet pad. cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to de-bond the adhesive. Keep eye covered until de-bonding is complete, usually within in 1-3 days. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.

**4.2. Most important symptoms and effects, both acute and delayed**

**General information** Treat symptomatically.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Notes for the doctor** Apply a pad soaked in warm water and allow the eyelids to separate. If adhesive bonding occurs, prise the skin apart slowly, working from the edge of the bonded area. Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

**Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.

**5.2. Special hazards arising from the substance or mixture**

**Specific hazards** The product is not flammable. Trace amounts of toxic fumes may be released on incineration and the use of breathing apparatus is recommended.

**5.3. Advice for firefighters**

**Protective actions during firefighting** Trace amounts of toxic fumes may be released on incineration and the use of breathing apparatus is recommended.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Avoid contact with skin and eyes. Provide adequate ventilation.

**6.2. Environmental precautions**

**Environmental precautions** The product is biodegradable.

**6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up** Provide adequate ventilation. Do not use cloths for mopping up. Polymerise with water and scrape off floor.

**6.4. Reference to other sections**

**Reference to other sections** For waste disposal, see Section 13. For personal protection, see Section 8.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

**Usage precautions** For personal protection, see Section 8.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage precautions** Store at temperatures between 2°C and 8°C.

**7.3. Specific end use(s)**

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

**SECTION 8: Exposure Controls/personal protection****8.1. Control parameters**



**SAS4950****Occupational exposure limits****ethyl 2-cyanoacrylate**Short-term exposure limit (15-minute): WEL 0.3 ppm 1.5 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

**8.2. Exposure controls****Protective equipment****Eye/face protection**

Wear eye protection.

**Hand protection**

Wear protective gloves made of the following material: Polyethylene. polypropylene Do NOT use Polyvinyl chloride (PVC). Rubber (natural, latex). nylon cotton

**SECTION 9: Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Liquid.
<b>Colour</b>	Clear.
<b>Odour</b>	Characteristic.
<b>Odour threshold</b>	No information available.
<b>pH</b>	Not applicable.
<b>Melting point</b>	No information available.
<b>Initial boiling point and range</b>	150°C @
<b>Flash point</b>	85°C
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	No information available.
<b>Vapour pressure</b>	.293 mm Hg @ °C
<b>Vapour density</b>	No information available.
<b>Relative density</b>	No information available.
<b>Solubility(ies)</b>	Insoluble in water. Soluble in the following materials: Acetone.
<b>Partition coefficient</b>	No information available.
<b>Auto-ignition temperature</b>	No information available.
<b>Decomposition Temperature</b>	No information available.
<b>Explosive properties</b>	No information available.

**9.2. Other information****Other information** None.**SECTION 10: Stability and reactivity**

**SAS4950****10.1. Reactivity**

**Reactivity** Polymerisation will occur in the presence of moisture and other basic materials.

**10.2. Chemical stability**

**Stability** Stable at normal ambient temperatures and when used as recommended.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** Polymerisation will occur in the presence of moisture and other basic materials.

**10.4. Conditions to avoid**

**Conditions to avoid** None known.

**10.5. Incompatible materials**

**Materials to avoid** Moisture.

**10.6. Hazardous decomposition products****SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Toxicological effects** Considered low toxicity.

**Acute toxicity - oral**

**ATE oral (mg/kg)** 4,198.15281276

**Inhalation** Vapours may irritate eyes and respiratory system May cause inhalation hypersensitivity (occupational asthma) in sensitive individuals.

**Ingestion** Cyanoacrylates are considered to have relatively low toxicity. It is almost impossible to swallow as it rapidly polymerises in the mouth.

**Skin contact** Bonds skin and eyes in seconds. May cause skin irritation.

**Eye contact** Bonds skin and eyes in seconds. In a dry atmosphere vapours may cause irritation and lachrymatory effect.

**SECTION 12: Ecological Information**

**Ecotoxicity** There are no data on the ecotoxicity of this product.

**12.1. Toxicity**

**Toxicity** Low

**12.2. Persistence and degradability**

**Persistence and degradability** The product is biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** No information available.

**12.4. Mobility in soil**

**Mobility** The product is insoluble in water.

**12.5. Results of PBT and vPvB assessment**

## SAS4950

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Dispose of waste product or used containers in accordance with local regulations

## SECTION 14: Transport information

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not applicable.

### 14.2. UN proper shipping name

Not applicable.

### 14.3. Transport hazard class(es)

No transport warning sign required.

### 14.4. Packing group

Not applicable.

### 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**

No.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**EU legislation** Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).  
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
Dangerous Preparations Directive 1999/45/EC.

### 15.2. Chemical safety assessment

## SAS4950

No chemical safety assessment has been carried out.

### Inventories

#### EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

### SECTION 16: Other information

<b>Revision date</b>	24/09/2014
<b>SDS number</b>	4523
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H400 Very toxic to aquatic life.

### Disclaimer

PRECAUTIONS: This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the product. WARRANTY: All products purchased from or supplied by Van-Line are subject to terms and conditions set out in the contract. Van-Line warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Van-Line is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Van-Line makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.