



SAFETY DATA SHEET SAS450 (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 SAS450 (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.

SAS450 (Hardener)

Precautionary statements	<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

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

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Terphenyl	10-30%
CAS number: 26140-60-3	
M factor (Acute) = 1	M factor (Chronic) = 1
Classification	
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**

Inhalation	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.
Ingestion	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.
Skin contact	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.
Eye contact	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

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

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

Specific treatments	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 (CO₂). 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

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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/m³

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.

SAS450 (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) 12.22222222

SECTION 12: Ecological Information

SAS450 (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

SAS450 (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**

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.
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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

SAS450 (Hardener)

Revision date	30/08/2016
SDS number	5298
Hazard statements in full	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.

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