



H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H412 Harmful to aquatic life with long lasting effects.

**[Prevention]:**

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.  
 P235 Keep cool.  
 P240 Ground / bond container and receiving equipment.  
 P241 Use explosion-proof electrical / ventilating / light / equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P260 Do not breathe mist / vapours / spray.  
 P261 Avoid breathing dust / fume / gas / mist / vapours / spray.  
 P262 Do not get in eyes, on skin, or on clothing.  
 P264 Wash 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 / eye protection / face protection.

**[Response]:**

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.  
 P302+352 IF ON SKIN: Wash with soap and water.  
 P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
 P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.  
 P321 Specific treatment (see information on this label).  
 P331 Do NOT induce vomiting.  
 P333+313 If skin irritation or a rash occurs: Get medical advice / attention.  
 P337 If eye irritation persists:  
 P362 Take off contaminated clothing and wash before reuse.  
 P363 Wash contaminated clothing before reuse.  
 P370+378 In case of fire: Use alcohol resistant foam, CO2, powder, water spray for extinction. Do not use water jet.

**[Storage]:**

P403+233 Store in a well ventilated place. Keep container tightly closed.

**[Disposal]:**

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

**2.3. Other hazards**

This product contains no PBT/vPvB chemicals.

**3. Composition/information on ingredients**

This product contains the following hazardous substances.

| Ingredient/Chemical Designations                                                                        | Weight % | GHS Classification                                                                     | Notes |
|---------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------|-------|
| Fatty Acids, C18-unsaturated, Polymers with Bisphenol A and epichlorohydrin<br>CAS Number: 0067989-52-0 | 25- <50  | Eye Irrit. 2;H319<br>STOT SE 3;H335<br>Skin Sens. 1;H317<br>Aquatic Chronic 2;H411     | [1]   |
| Epoxy Resin<br>CAS Number: 0025068-38-6                                                                 | 10- <25  | Eye Irrit. 2;H319<br>Skin Irrit. 2;H315<br>Skin Sens. 1;H317<br>Aquatic Chronic 2;H411 | [1]   |

|                                                                         |          |                                                                                                                                              |        |
|-------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Aluminium, alkyls<br>CAS Number: 0007429-90-5                           | 2.5- <10 | Water<br>react. 2;H261<br>Pyr. Sol. 1;H250                                                                                                   | [1][2] |
| Epoxidised cashew nutshell liquid<br>CAS Number: 0068413-24-1           | 2.5- <10 |                                                                                                                                              | [1]    |
| Solvent naphtha (petroleum), light aromatic<br>CAS Number: 0064742-95-6 | 2.5- <10 | Flam. Liq. 3;H226<br>Asp. Tox. 1;H304<br>STOT SE 3;H335<br>STOT SE 3;H336<br>Aquatic Chronic 2;H411                                          | [1]    |
| Xylene<br>CAS Number: 0001330-20-7                                      | 2.5- <10 | Flam. Liq. 3;H226<br>Acute Tox. 4;H332<br>Acute Tox. 4;H312<br>Skin Irrit. 2;H315<br>Asp. Tox. 1;H304<br>Eye Irrit. 2;H319<br>STOT SE 3;H335 | [1][2] |
| 3-Glycidyloxypropyl-trimethoxysilane<br>CAS Number: 0002530-83-8        | <1       | Eye Dam. 1;H318                                                                                                                              | [1]    |

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

\*The full texts of the Hazard (H) phrases are shown in Section 16.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence do not require reporting in this section.

## 4. First aid measures

### 4.1. Description of first aid measures

#### General

In all cases of doubt, or when symptoms persist, seek medical attention.

Never give anything by mouth to an unconscious person.

#### Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

#### Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognised skin cleanser. Do NOT use solvents or thinners.

#### Eye Contact

Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart and seek medical attention.

#### Ingestion

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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

No data available

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

No data available

## 5. Fire-fighting measures

### 5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.

Do not use - water jet.

Note; Fire will produce dense black smoke. Decomposition products may be hazardous to health. Avoid exposure and use breathing apparatus as appropriate.

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

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

Fire will produce dense black smoke. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Avoid exposure and use breathing apparatus as appropriate.

### 5.3. Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

## 6. Accidental release measures

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

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapour levels are below the Lower Explosive Limit before re-entering.

### 6.2. Environmental precautions

Do not allow spills to enter drains or watercourses.

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

Ventilate the area and avoid breathing vapours. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

## 7. Handling and storage

### 7.1. Precautions for safe handling

#### Handling

This coating contains solvents. Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Areas of storage, preparation and application should be ventilated to prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.

#### In Storage

Handle containers carefully to prevent damage and spillage.

Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks

and electrical equipment are protected to the appropriate standard.

This coating contains solvents. Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Areas of storage, preparation and application should be ventilated to prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.

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

Keep away from the following materials: oxidising agents, strong alkalis, strong acids.

Avoid skin and eye contact. Avoid inhalation of vapours and spray mists. Observe label precautions. Use personal protection as shown in section 8.

Smoking, eating and drinking should be prohibited in all preparation and application areas.

Never use pressure to empty a container; containers are not pressure vessels.

There are no exposure scenarios, see details in section 1.

## 7.3. Specific end use(s)

Store in a well ventilated, dry place away from sources of heat and direct sunlight.

Store on concrete or other impervious floor, preferably with bunding to contain any spillage. Do not stack more than 3 pallets high.

Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in the original container or one of the same material.

Prevent unauthorised access.

All sources of ignition (hot surfaces, sparks, open flames etc) should be excluded from areas of preparation and application. All electrical equipment (including torches) should be protected (Ex) to the appropriate standard.

The product may charge electrostatically. Always use earthing leads when pouring solvents and transferring product. Operators should wear clothing which does not generate static (at least 60% natural fibre) and antistatic footwear; floors should be of conducting type.

# 8. Exposure controls and personal protection

## 8.1. Control parameters

Exposure standards are those provided by the ACGIH (American Conference of Government Industrial Hygienists).

| Material          | Short term (15 min. ave) |                   | Long term (8hr time weighted average) |       | Comments |
|-------------------|--------------------------|-------------------|---------------------------------------|-------|----------|
|                   | ppm                      | mg/m <sup>3</sup> | ppm                                   | mg/M3 |          |
| Aluminium, alkyls | -                        | -                 | -                                     | 2     |          |
| Talc              | -                        | -                 | -                                     | 2     |          |
| Xylene            | 150                      | 651               | 100                                   | 434   |          |

Key to notification

(P) Peak exposure limit

(R) Suppliers Recommended Limit

(Sk) There is a risk of absorption through unbroken skin

(Sen) Sensitiser

(Cat1) Category 1 - established human carcinogen

(Cat2) Category 2 - probable human carcinogen

(Cat3) Category 3 - substances suspected of having carcinogenic potential

## DNEL/PNEC values

No Data Available

## 8.2. Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapour below occupational exposure limits suitable respiratory protection must be worn.

### Eye Protection

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids. Eyewear should comply with an approved standard.

Wear a full face shield if mixing or pouring operations pose a risk of splashes.

An eye wash station is suggested as a good work place practice.

### Skin Protection

Gloves of an appropriate material should be worn during mixing and application.

### Other

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. Barrier creams may help to protect areas which are difficult to cover such as the face and neck. They should however not be applied once exposure has occurred. Petroleum jelly based types such as Vaseline should not be used. All parts of the body should be washed after contact.

### Respiratory Protection

When concentrations exceed the exposure limits shown above, workers must wear appropriate approved respirators. Provision of other controls such as exhaust ventilation should be considered if practical.

### Thermal hazards

No Data Available

## 9. Physical and chemical properties

|                                                        |                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------|
| <b>Appearance</b>                                      | Dark Coloured Liquid                                                   |
| <b>Odour</b>                                           | Smell of Solvent                                                       |
| <b>Odour threshold</b>                                 | Not Measured                                                           |
| <b>pH</b>                                              | N/A                                                                    |
| <b>Melting point / freezing point (°C)</b>             | Not Measured                                                           |
| <b>Initial boiling point and boiling range (°C)</b>    |                                                                        |
| <b>Flash Point (C)</b>                                 | 49                                                                     |
| <b>Evaporation rate (Ether = 1)</b>                    | Not Measured                                                           |
| <b>Flammability (solid, gas)</b>                       | Not Applicable                                                         |
| <b>Upper/lower flammability or explosive limits</b>    | Lower Explosive Limit: 1.1 Xylene<br>Upper Explosive Limit: 6.6 Xylene |
| <b>Vapour pressure (Pa)</b>                            | Not Measured                                                           |
| <b>Vapour Density</b>                                  | Heavier than air.                                                      |
| <b>Specific Gravity</b>                                | 1.45                                                                   |
| <b>Solubility in Water</b>                             | Immiscible                                                             |
| <b>Partition coefficient n-octanol/water (Log Kow)</b> | Not Measured                                                           |
| <b>Autoignition temperature (°C)</b>                   | Not Measured                                                           |
| <b>Decomposition temperature</b>                       | Not Measured                                                           |

Viscosity (cSt)

N/A

## 9.2. Other information

No further information

## 10. Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7). When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid possible exothermic reactions.

### 10.3. Possibility of hazardous reactions

May react exothermically with: oxidising agents, strong alkalis, strong acids.

### 10.4. Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

Keep away from the following materials: oxidising agents, strong alkalis, strong acids.

### 10.6. Hazardous decomposition products

Fire will produce dense black smoke. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Avoid exposure and use breathing apparatus as appropriate.

## 11. Toxicological information

### Acute toxicity

Exposure to solvent vapour concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Based on the properties of the epoxy constituents and considering toxicological data on similar preparations this preparation may be an irritant and a skin and respiratory sensitizer. Low molecular weight epoxy constituents are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and sensitisation, possibly with cross-sensitisation to other epoxies.

The preparation has been assessed using the Acute Toxicity Data listed below, and classified for toxicological hazards accordingly. See section 2 for details.

| Ingredient                                        | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapour LD50, mg/L/4hr | Inhalation Dust/Mist LD50, mg/L/4hr |
|---------------------------------------------------|------------------|------------------|----------------------------------|-------------------------------------|
| 3-Glycidyoxypropyl-trimethoxysilane - (2530-83-8) | 8,030.00, Rat    | 4,248.00, Rabbit | Not Available                    | 5.30, Rat                           |

|                                                                                            |               |                  |               |               |
|--------------------------------------------------------------------------------------------|---------------|------------------|---------------|---------------|
| Aluminium, alkyls - (7429-90-5)                                                            | Not Available | Not Available    | Not Available | Not Available |
| Epoxidised cashew nutshell liquid - (68413-24-1)                                           | Not Available | Not Available    | Not Available | Not Available |
| Epoxy Resin - (25068-38-6)                                                                 | 2,000.00, Rat | 2,000.00, Rabbit | Not Available | Not Available |
| Fatty Acids, C18-unsaturated, Polymers with Bisphenol A and epichlorohydrin - (67989-52-0) | Not Available | Not Available    | Not Available | Not Available |
| Solvent naphtha (petroleum), light aromatic - (64742-95-6)                                 | 6,800.00, Rat | 3,400.00, Rabbit | Not Available | Not Available |
| Xylene - (1330-20-7)                                                                       | 4,299.00, Rat | 1,548.00, Rabbit | Not Available | 20.00, Rat    |

| Item                                                        | Category       | Hazard                               |
|-------------------------------------------------------------|----------------|--------------------------------------|
| Acute Toxicity (mouth)                                      | Not Classified | Not Applicable                       |
| Acute Toxicity (skin)                                       | Not Classified | Not Applicable                       |
| Acute Toxicity (inhalation)                                 | Not Classified | Not Applicable                       |
| Skin corrosion/irritation                                   | 2              | Causes skin irritation.              |
| Eye damage/irritation                                       | 2              | Causes serious eye irritation.       |
| Sensitization (respiratory)                                 | Not Classified | Not Applicable                       |
| Sensitization (skin)                                        | 1              | May cause an allergic skin reaction. |
| Germ toxicity                                               | Not Classified | Not Applicable                       |
| Carcinogenicity                                             | Not Classified | Not Applicable                       |
| Reproductive Toxicity                                       | Not Classified | Not Applicable                       |
| Specific target organ systemic toxicity (single exposure)   | Not Classified | Not Applicable                       |
| Specific target organ systemic Toxicity (repeated exposure) | Not Classified | Not Applicable                       |
| Aspiration hazard                                           | Not Classified | Not Applicable                       |

## 12. Ecological information

### 12.1. Toxicity

The preparation has been assessed according to the GHS criteria and is classified as dangerous for the environment, using the toxicity data listed below.

There are no data available on the product itself.

The product should not be allowed to enter drains or water courses.

### Aquatic Ecotoxicity

| Ingredient                                                                                 | 96 hr LC50 fish, mg/l     | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|--------------------------------------------------------------------------------------------|---------------------------|----------------------------|-------------------|
| Fatty Acids, C18-unsaturated, Polymers with Bisphenol A and epichlorohydrin - (67989-52-0) | Not Available             | Not Available              | Not Available     |
| Epoxy Resin - (25068-38-6)                                                                 | 3.10, Pimephales promelas | 1.40, Daphnia magna        | Not Available     |
| Aluminium, alkyls - (7429-90-5)                                                            | 0.12, Oncorhynchus mykiss | 3.50, Daphnia magna        | Not Available     |
| Epoxidised cashew nutshell liquid -                                                        | Not Available             | Not Available              | Not Available     |



|                                                            |                           |                       |                                          |
|------------------------------------------------------------|---------------------------|-----------------------|------------------------------------------|
| (68413-24-1)                                               |                           |                       |                                          |
| Solvent naphtha (petroleum), light aromatic - (64742-95-6) | 9.22, Oncorhynchus mykiss | 6.14, Daphnia magna   | 19.00 (72 hr), Selenastrum capricornutum |
| Xylene - (1330-20-7)                                       | Not Available             | Not Available         | Not Available                            |
| 3-Glycidyloxypropyl-trimethoxysilane - (2530-83-8)         | 55.00, Cyprinus carpio    | 473.00, Daphnia magna | 255.00 (72 hr), Scenedesmus subspicatus  |

## 12.2. Persistence and degradability

There is no data available on the preparation itself.

## 12.3. Bioaccumulative potential

Not Measured

## 12.4. Mobility in soil

No data available

## 12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

## 12.6. Other adverse effects

No data available

## 13. Disposal considerations

### 13.1. Waste treatment methods

Do not allow into drains or water courses. Wastes and empty containers should be disposed of in accordance with State and Federal regulations.

Using information provided in this data sheet advice should be obtained from the local Waste Regulation Authority as to whether special waste regulations apply.

## 14. Transport information

14.1. UN number 1263

14.2. UN proper shipping name Paint

14.3. Transport hazard class(es)

Road and Rail Transport UN1263, Paint, CLASS 3, PG III, HAZCHEM \*3Y

IMDG Class/Div 3 Sub Class  
reference :

Ems F-E,S-E

ICAO/IATA Class 3 Sub Class

14.4. Packing group III

### 14.5. Environmental hazards

Road and Rail Environmentally Hazardous: No  
Transport

**IMDG** Marine Pollutant: No  
**reference :**

**14.6. Special precautions for user**

No further information

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

Not Applicable

**15. Regulatory information**

This product and all its components complies with the chemical and transport regulations from the country listed in section 1.3.

Other regulatory information specific to the hazardous chemical(s):

Japan Fire Law:

category 4, class 2 petroleum, risk class III

Poisonous and Deleterious Substances Control  
Law:

Not applicable

Industrial Safety and Health Law (MSDS):

n-Butanol

Ethyl Benzene

Xylene

Industrial Safety and Health Law (article 57):

Xylene

Pollutant Release and Transfer Register (PRTR) Class 1:

Epoxy Resin (30)

Ethyl Benzene (40)

Xylene (63)

Pollutant Release and Transfer Register (PRTR)  
Class 2:

Not applicable

Class organic solvent:

Not applicable

Waste disposal and cleaning:

Industrial waste subject to special control

**16. Other information**

The information on this SDS is based upon the present state of our knowledge and on current law. The product should not be used for purposes other than shown in the product data sheet without first obtaining written advice.

It is always the responsibility of the user to take all necessary steps to meet the demands of applicable legislation.

The information in this Safety Data Sheet is required according to legislation.

The full text of the phrases appearing in section 3 is:

H226 Flammable liquid and vapour.

H250 Catches fire spontaneously if exposed to air.

H261 In contact with water releases flammable gases.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H372 Causes damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

**This SDS is valid for 5 years from the revised date on page 1.  
The revision date is in American format (e.g. MM/DD/YY).**

End of document



All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Akzo Nobel however makes no warranty as to the accuracy of and/or sufficiency of such information.