



Danger

H316 Causes mild skin irritation.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H402 Harmful to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

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.

P271 Use only outdoors or in a well-ventilated area.

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.

P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.

P321 Specific treatment (see information on this label).

P331 Do NOT induce vomiting.

P332+313 If skin irritation occurs: Get medical advice / attention.

P333 If skin irritation or a rash occurs:

P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P304+341 If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

[Storage]:

No GHS storage statements

[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
HDI homopolymer CAS Number: 0028182-81-2	>50	Skin Sens. 1;H317 Resp. Sens. 1;H334	[1]
Solvent naphtha (petroleum), light aromatic CAS Number: 0064742-95-6	10- <25	Flam. Liq. 3;H226 Asp. Tox. 1;H304 STOT SE 3;H335 STOT SE 3;H336 Aquatic Chronic 2;H411	[1]
1,2,4,-Trimethylbenzene CAS Number: 0000095-63-6	2.5- <10	Flam. Liq. 3;H226 Acute Tox. 4;H332 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Aquatic Chronic 2;H411	[1][2]
Hexamethylene diisocyanate CAS Number: 0000822-06-0	<1	Acute Tox. 3;H331 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Resp. Sens. 1;H334 Skin Sens. 1;H317	[1][2]

[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, CO₂, 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 a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts), concentrated (d:0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts), water (95 parts). Add the same decontaminant to any residues and allow to stand for several days in a non-sealed container until no further reaction occurs. Once this stage is reached, close container and dispose of in accordance with the waste regulations (see section

13). Do not allow spills to enter drains or watercourses. If drains or sewers 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

Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should only be employed in processes in which this product is used under appropriate medical supervision.

In Storage

Handle containers carefully to prevent damage and spillage.

Precautions should be taken to minimise exposure to atmospheric humidity or water as carbon dioxide may be formed which, in closed containers can result in pressurisation. Care should be taken when re-opening partly used containers.

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 Hygenists).

Material	Short term (15 min. ave)		Long term (8hr time weighted average)		Comments
	ppm	mg/m ³	ppm	mg/M3	
HDI homopolymer		0.07		0.02	---
Hexamethylene diisocyanate	-	0.07	0.005	0.034	---

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.

Provide adequate ventilation. This should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by spray operators even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapour below the WEL, suitable respiratory protection must be worn. (See Personal Protection)

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

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 respirators approved in accordance with Directive 89/656/EEC and the Personal Protection Equipment Regulations. Provision of other controls such as exhaust ventilation should be considered if practical.

An air fed respirator must be worn when applying this product in a confined space. Even in open spaces, an air fed respirator should be worn when spraying.

If applying by brush or roller in an open, well ventilated area, air fed respirators could be replaced by a charcoal filter mask.

Thermal hazards

No Data Available

9. Physical and chemical properties

Appearance	Colourless Liquid
Odour	Smell of Amine
Odour threshold	Not Measured
pH	N/A
Melting point / freezing point (°C)	Not Measured
Initial boiling point and boiling range (°C)	137
Flash Point (°C)	50
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 1.1 Upper Explosive Limit: 7
Vapour pressure (Pa)	Not Measured
Vapour Density	Heavier than air.
Specific Gravity	1.06
Solubility in Water	Immiscible
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Autoignition temperature (°C)	Not Measured

Decomposition temperature

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). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide may be produced.

Keep away from oxidising agents, strongly alkaline and strongly acid materials, amines, alcohols and water. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water resulting in evolution of carbon dioxide. In closed containers, pressure build up could result in distortion, blowing and in extreme cases bursting of the container.

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 isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitisation of the respiratory system resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to

airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability. Persons with a chronic or recurrent respiratory disease should not be employed in any process in which these products are used.

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
1,2,4,-Trimethylbenzene - (95-63-6)	3,400.00, Rat	3,160.00, Rabbit	18.00, Rat	Not Available
HDI homopolymer - (28182-81-2)	5,000.00, Rat	Not Available	Not Available	Not Available
Hexamethylene diisocyanate - (822-06-0)	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

Item	Category	Hazard
Acute Toxicity (mouth)	Not Classified	Not Applicable
Acute Toxicity (skin)	Not Classified	Not Applicable
Acute Toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	Not Classified	Not Applicable
Eye damage/irritation	Not Classified	Not Applicable
Sensitization (respiratory)	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
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
HDI homopolymer - (28182-81-2)	100.00, Danio rerio	100.00, Daphnia magna	100.00 (72 hr), Scenedesmus subspicatus
Solvent naphtha (petroleum), light aromatic - (64742-95-6)	9.22, Oncorhynchus mykiss	6.14, Daphnia magna	19.00 (72 hr), Selenastrum capricornutum
1,2,4,-Trimethylbenzene - (95-63-6)	7.72, Pimephales promelas	3.60, Daphnia magna	Not Available
Hexamethylene diisocyanate - (822-06-0)	82.80, Danio rerio	89.10, Daphnia magna	77.40 (72 hr), Desmodesmus 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 (PSN) Paint
14.3. Transport hazard class(es)

Road and Rail Transport UN1263, PAINT, PG III

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: Yes
Transport

IMDG Marine Pollutant: Yes (Solvent naphtha (petroleum), light aromatic)
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):

None noted.

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.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

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.