

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

### 1 Identification

**Product identifier**
**Trade name:** Hardener for 2K Wood Oil (6633)

**Article number:** 6633

**CAS Number:** 28182-81-2

**NLP Number:** 500-060-2

**Application of the substance**
**/ the mixture** Hardening agent/ Curing agent

**Details of the supplier of the safety data sheet**
**Manufacturer/Supplier:**
**Supplier**

 Osmo Wood and Colour Canada Ltd.  
 8812 51 Ave NW  
 Edmonton AB T6E 5E8  
 Canada  
 Tel: +1-844-OSMOCAN  
 E-mail: info@osmo.ca

**Manufacturer**

 Osmo Holz und Color GmbH & Co. KG  
 Affhüppen Esch 12  
 D-48231 Warendorf

**Information department:**

 Product safety department  
 Tel.: +49 (0) 251 / 692 - 188  
 Fax: +49 (0) 251 / 692 - 462  
 e-mail: helmut.starp@osmo.de

**Emergency telephone**
**number:**

 24h-Emergency Phone Number:  
 For Chemical Emergency, Spill; Leak; Fire Exposure or Accident Call Day or  
 Night within USA and Canada 1-800-424-9300  
 Outside USA and Canada 001-703-527-3887 (CCN 16475)

### 2 Hazard identification

**Classification of the substance or mixture**

Acute Toxicity (Inhalation) - Category 4

H332 Harmful if inhaled.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

 Specific Target Organ Toxicity - Single Exposure -  
 Category 3

H335 May cause respiratory irritation.

**Additional information:**

For the wording of the listed hazard phrases refer to section 16.

**Label elements**
**Hazard pictograms**


GHS07

(Contd. on page 2)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 1)

**Signal word**

Warning

**Hazard-determining****components of labeling:**

Hexamethylene diisocyanate, oligomers

**Hazard statements**

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

**Precautionary statements**

P260 Do not breathe vapours.

P262 Do not get in eyes, on skin, or on clothing.

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

P301 IF SWALLOWED:

P331 Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P316 Get emergency medical help immediately. Call a Poison Centre.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 1

Reactivity = 0

**HMIS-ratings (scale 0 - 4)**

Health = 1

Fire = 1

Reactivity = 0




**Other hazards**

Always wear a dust mask when sanding.

Observe the general safety regulations when handling chemicals.

### 3 Composition/Information on ingredients

**Chemical characterization: Substances****CAS No. Description** 28182-81-2 Hexamethylene diisocyanate, oligomers**Identification number(s)****NLP Number:** 500-060-2**Impurities and stabilising additives:**

Impurities and stabilising additives:		
822-06-0	hexamethylene-di-isocyanate	<0.1% w/w
<p>  Acute Toxicity (Dermal) – Category 3, H311; Acute Toxicity (Inhalation) - Category 3, H331;  Respiratory Sensitizer - Category 1, H334;  Acute Toxicity (Oral) - Category 4, H302; Skin Irritation - Category 2, H315; Eye Irritation - Category 2A, H319; Skin Sensitizer - Category 1, H317; Specific Target Organ Toxicity - Single Exposure - Category 3, H335            Specific concentration limits: Respiratory Sensitizer - Category 1; H334: C ≥ 0.5 %            Skin Sensitizer - Category 1; H317: C ≥ 0.5 %         </p>		

(Contd. on page 3)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 2)

**Description:** Substance

#### 4 First-aid measures

##### Description of first aid measures

<b>General information:</b>	Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
<b>After inhalation:</b>	Take affected persons into fresh air and keep quiet. Seek medical treatment in case of complaints. Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.
<b>After skin contact:</b>	Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor. If skin irritation or rash occurs: Get medical advice/attention.
<b>After eye contact:</b>	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
<b>After swallowing:</b>	Rinse mouth. Seek medical treatment.
<b>Information for doctor:</b>	
<b>Most important symptoms and effects, both acute and delayed</b>	No further relevant information available.
<b>Indication of any immediate medical attention and special treatment needed</b>	No further relevant information available.

#### 5 Fire-fighting measures

##### Extinguishing media

**Suitable extinguishing agents:**

 CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.

**For safety reasons unsuitable extinguishing agents:**

Water with full jet

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

 Isocyanate vapors  
 Nitrogen oxides (NO<sub>x</sub>)  
 (Traces)  
 Hydrogen cyanide (HCN)

##### Advice for firefighters

**Protective equipment:**

 Wear fully protective suit.  
 Mouth respiratory protective device.

(Contd. on page 4)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 3)

**Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.  
Cool endangered receptacles with water spray.

### 6 Accidental release measures

**Personal precautions,****protective equipment and****emergency procedures**

Wear protective clothing.

**Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

**Methods and material for****containment and cleaning up:**

Remove mechanically; cover residues with moist, liquid-binding material (e.g. sawdust, calcium silicate hydrate-based chemical binder, sand). After about 1 hour, take up in waste container, do not close (CO<sub>2</sub> evolution!). Keep moist and leave in a safe place outdoors for several days.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Dispose of the collected material according to regulations.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### 7 Handling and storage

**Handling:****Precautions for safe handling**

Spraying requires the extraction of air.

The air limit values mentioned in Chapter 8 must be observed. In workplaces where aerosols and/or vapours of isocyanates may occur in higher concentrations, targeted air pollution control must be used to avoid exceeding the occupational hygiene limit value. Air movement must be kept away from people.

The personal protection measures described in Chapter 8 must be followed.

When handling isocyanates, the required protective measures must be observed. Avoid contact with skin and eyes and inhalation of vapours.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Avoid contact with skin and eyes.

**General protective and****hygienic measures:**

Be sure to clean skin thoroughly after work and before breaks.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

(Contd. on page 5)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name:** Hardener for 2K Wood Oil (6633)

(Contd. of page 4)

Avoid contact with the eyes and skin.  
 Do not eat, drink, smoke or sniff while working.  
 Do not carry product impregnated cleaning cloths in trouser pockets.

**Information about protection**

**against explosions and fires:** Fumes can combine with air to form an explosive mixture.

**Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by**

**storerooms and receptacles:** Prevent any seepage into the ground.  
 Store only in the original receptacle.

**Information about storage in**

**one common storage facility:** Store away from foodstuffs.

**Further information about****storage conditions:**

Store receptacle in a well ventilated area.  
 Store in dry conditions.  
 Keep receptacle tightly sealed.  
 Store in cool, dry conditions in well sealed receptacles.

**Storage class:**

TRGS 510 storage class: 12 non-flammable liquids that can not be assigned to any other storage class.

10

**Specific end use(s)**

No further relevant information available.

### 8 Exposure controls/ Personal protection

**Control parameters****Components with limit values that require monitoring at the workplace:****822-06-0 hexamethylene-di-isocyanate (<0.1%)**

EV (Canada)	TWA: 0.005 ppm Ceiling: 0.02 ppm
TWA (Canada)	TWA: 0.005 ppm Ceiling: 0.01 ppm S(R)
REL (USA)	TWA: 0.035 mg/m <sup>3</sup> , 0.005 ppm Ceiling: 0.14* mg/m <sup>3</sup> , 0.02* ppm *10-min
TLV (USA)	TWA: 0.005 ppm BEI

**Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 6)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 5)

**Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Wash hands before breaks and at the end of work.  
 Keep away from foodstuffs, beverages and feed.  
 Avoid contact with the eyes and skin.  
 Immediately remove all soiled and contaminated clothing.  
 The usual precautionary measures for handling chemicals should be followed.  
 Store protective clothing separately.  
 Do not eat, drink, smoke or sniff while working.  
 See Section 7 for information on safe handling.

**Breathing equipment:**

In the case of respiratory and skin hypersensitivity (asthma, chronic bronchitis, chronic skin diseases), handling of the product is not recommended.  
 Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Butyl rubber, BR

Fluorocarbon rubber (Viton)

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**For the permanent contact gloves made of the following materials are suitable:**

chemical resistant gloves (EN 374)

Butyl rubber, BR

**Not suitable are gloves made of the following materials:**

Nitrile rubber, NBR

**Eye protection:**

Face protection

Schutzbrille mit Seitenschutz (Gestellbrille) (z.B. EN 166)

**Body protection:**

Use protective suit.

Protective work clothing

(Contd. on page 7)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 6)

### 9 Physical and chemical properties

#### Information on basic physical and chemical properties

##### General Information

##### Appearance:

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Nearly odorless
<b>Odor threshold:</b>	Not determined.

<b>pH-value:</b>	Not applicable Mixture is non-polar/aprotic.
------------------	---

##### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Not applicable

<b>Flash point:</b>	~158 °C (DIN 53213, 28182-81-2 Hexamethylene diisocyanate, oligomers)
---------------------	---

<b>Flammability (solid, gaseous):</b>	Not applicable.
---------------------------------------	-----------------

<b>Ignition temperature:</b>	~445 °C (DIN 51794, 28182-81-2 Hexamethylene diisocyanate, oligomers)
------------------------------	---

<b>Decomposition temperature:</b>	Not determined.
-----------------------------------	-----------------

<b>Auto igniting:</b>	Not determined.
-----------------------	-----------------

<b>Danger of explosion:</b>	Product does not present an explosion hazard.
-----------------------------	---

##### Explosion limits:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

<b>Vapor pressure at 20 °C:</b>	<0.00003 hPa (EG A4, 28182-81-2 Hexamethylene diisocyanate, oligomers)
---------------------------------	--

<b>Density at 20 °C:</b>	~1.17 g/cm <sup>3</sup> (DIN 53217)
--------------------------	-------------------------------------

<b>Relative density</b>	Not determined.
-------------------------	-----------------

<b>Evaporation rate</b>	Not determined.
-------------------------	-----------------

##### Solubility in / Miscibility with

<b>Water:</b>	Not miscible or difficult to mix.
---------------	-----------------------------------

<b>Partition coefficient (n-octanol/water):</b>	Not determined.
---	-----------------

##### Viscosity:

<b>Dynamic at 20 °C:</b>	~1,200 mPas (DIN EN ISO 3219/A.3)
<b>Kinematic:</b>	Not determined.

(Contd. on page 8)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 7)

**Other information**

No further relevant information available.

### 10 Stability and reactivity

<b>Reactivity</b>	No further relevant information available.
<b>Chemical stability</b>	
<b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used and stored according to specifications.
<b>Possibility of hazardous reactions</b>	<ul style="list-style-type: none"> <li>Reacts with alcohols.</li> <li>Reacts with amines.</li> <li>Decomposes with water, acids and alkalis.</li> <li>Exothermic reaction.</li> <li>Danger of bursting.</li> </ul>
<b>Conditions to avoid</b>	No further relevant information available.
<b>Incompatible materials:</b>	No further relevant information available.
<b>Hazardous decomposition products:</b>	No hazardous decomposition products when stored and handled correctly.

### 11 Toxicological information

**Information on toxicological effects****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Inhalative	ATE-Wert (Nebel)	1.5 mg/l (rat)
------------	------------------	----------------

**28182-81-2 Hexamethylene diisocyanate, oligomers**

Oral	LD50	>2,500 mg/kg (rat) (OECD 423)
Dermal	LD50	>2,000 mg/kg (rat) (Acute Dermal Toxicity)
Inhalative	LC50 / 4h	11 mg/l (ATE)

**Primary irritant effect:****on the skin:****28182-81-2 Hexamethylene diisocyanate, oligomers**

Dermal	Skin irritation	(rabbit) (OECD- Prüfrichtlinie 404)
--------	-----------------	-------------------------------------

**on the eye:****28182-81-2 Hexamethylene diisocyanate, oligomers**

Eye irritation	(rabbit)
----------------	----------

**Sensitization:** May cause an allergic skin reaction.

(Contd. on page 9)



## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 8)

**28182-81-2 Hexamethylene diisocyanate, oligomers**

Inhalative	Sensibilisierung	(mouse) (Lokaler Lymphknoten-Test (LLNA))
------------	------------------	---

**Other information (about experimental toxicology):**

Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing isocyanate sensitization and respiratory reaction.

**Subacute to chronic toxicity:**
**28182-81-2 Hexamethylene diisocyanate, oligomers**

NOAEL	3.3 mg/Tag /inhalativ (rat)
-------	-----------------------------

**Additional toxicological information:**

Special properties/effects: Over-exposure, especially when spraying coatings containing isocyanate without the necessary precautions, entails the risk of concentration-dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations, including concentrations below the UK Workplace Exposure Limit (WEL). Prolonged contact with the skin may cause tanning and irritant effects.  
May cause an allergic skin reaction.

**Carcinogenic categories**
**IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

**NTP (National Toxicology Program)**

None of the ingredients is listed.

## 12 Ecological information

**Toxicity**
**Aquatic toxicity:** Do not allow product to reach ground water, water course or sewage system.

**28182-81-2 Hexamethylene diisocyanate, oligomers**

EC50 / 48h	>100 mg/l (Daphnia magna) (OECD- Prüfrichtlinie 202)
IC50 / 72h	>1,000 mg/l (algae) (DIN 38412)
LC50 / 96h	>100 mg/l (Brachydanio rerio) (OECD- Prüfrichtlinie 203)
Biolog. Abbaubarkeit	28 % (OECD Guideline for Testing of Chemicals, No.301 D)
Biokonz.-Faktor	3.2 /(berechnet)

**Persistence and degradability** Not easily biodegradable

(Contd. on page 10)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 9)

**Behavior in environmental systems:****Bioaccumulative potential****28182-81-2 Hexamethylene diisocyanate, oligomers**

log POW | ~8.38 (Wert berechnet)

**Mobility in soil** No further relevant information available.**Ecotoxicological effects:****Behavior in sewage processing plants:****28182-81-2 Hexamethylene diisocyanate, oligomers**

EC0 / 3h | &gt;100 mg/l (Daphnia magna)

EC50 | 3,828 mg/l (activated sludge organism) (OECD Guideline for Testing of Chemicals, No.209)

**Additional ecological information:****General notes:**

The resin reacts with water at the interface forming CO<sub>2</sub> and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by watersoluble solvents. Previous experience shows that polyurea is inert and non-degradable.

Water hazard class 1 (Assessment by list): slightly hazardous for water

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.

### 13 Disposal considerations

**Waste treatment methods****Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Disposal must be made according to official regulations.

**Uncleaned packagings:****Recommendation:**

Waste treatment methods:

After final product withdrawal, all residues must be removed from containers (drip-free, powderfree or paste-free). Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated. These containers can be returned for recycling to the appropriate centres set up within the framework of the existing takeback scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

(Contd. on page 11)

## Safety Data Sheet

according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 10)

### 14 Transport information

<b>UN-Number</b> <i>DOT/TDG, ADR, ADN, IMDG, IATA</i>	Not applicable
<b>UN proper shipping name</b> <i>DOT/TDG, ADR, ADN, IMDG, IATA</i>	Not applicable
<b>Transport hazard class(es)</b> <i>DOT, ADR, ADN, IMDG, IATA</i> Class	Not applicable
<b>Packing group</b> <i>DOT/TDG, ADR, IMDG, IATA</i>	Not applicable
<b>Environmental hazards:</b> <b>Marine pollutant:</b>	No
<b>Special precautions for user</b>	Not applicable.
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	Special precautions for user : Not dangerous cargo. Slight smell. Keep dry. Avoid heat above +50 °C. Keep away from foodstuffs, acids and alkalis.
<b>UN "Model Regulation":</b>	Not applicable

### 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Sara

**Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

**Section 313 (Specific toxic chemical listings):**

822-06-0 | hexamethylene-di-isocyanate

**TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

**Canadian substance listings:**

**Canadian Domestic Substances List (DSL)**

All ingredients are listed.

(Contd. on page 12)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 11)

<b>Canadian Non-Domestic Substances List (NDSL)</b>
None of the ingredients is listed.
<b>Canadian Ingredient Disclosure list (limit 0.1%)</b>
None of the ingredients is listed.
<b>Canadian Ingredient Disclosure list (limit 1%)</b>
None of the ingredients is listed.

**GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).

**Hazard pictograms**

GHS07

**Signal word**

Warning

**Hazard-determining****components of labeling:**

Hexamethylene diisocyanate, oligomers

**Hazard statements**

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

**Precautionary statements**

P260 Do not breathe vapours.

P262 Do not get in eyes, on skin, or on clothing.

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

P301 IF SWALLOWED:

P331 Do NOT induce vomiting.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P316 Get emergency medical help immediately. Call a Poison Centre.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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

**National regulations:**
**Other regulations, limitations  
and prohibitive regulations**

Other regulations: The European Committee of Paint, Printing Ink and Artists' Colours Manufacturers' Associations (CEPE) provides the following information on coatings containing isocyanates: Ready-to-use paints containing isocyanates may have an irritant effect on mucous membranes - especially on breathing organs - and cause hypersensitivity reactions. Inhalation of vapor or spray mist may cause sensitisation. When handling paints containing isocyanates all precautions required for solvent-containing paints must be followed. Vapor and spray mist in particular should not be inhaled. Allergics and asthmatics as well as people prone to respiratory ailments should not work with isocyanate containing paints.

(Contd. on page 13)

## Safety Data Sheet

### according to HPR, Schedule 1

Printing date 02/14/2023

Version 3.1

Reviewed on 02/14/2023

**Trade name: Hardener for 2K Wood Oil (6633)**

(Contd. of page 12)

**Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**

H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.

**Recommended restriction of use**

The product is used as a hardener in coating materials. Appropriate protective measures are required to deal with coating materials that contain reactive polyisocyanates and residual monomeric HDI (see also this safety data sheet). They may therefore only be used in industrial or professional applications. They are not suitable for use in do-it-yourself applications.

**Department issuing SDS:**

product safety department

**Contact:**

Hr. Dr. Starp

**Date of the latest revision of the safety data sheet**

02/14/2023

**Abbreviations and acronyms:**

ICAO: International Civil Aviation Organisation  
 IMDG: International Maritime Code for Dangerous Goods  
 DOT: US Department of Transportation  
 IATA: International Air Transport Association  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 NFPA: National Fire Protection Association (USA)  
 HMIS: Hazardous Materials Identification System (USA)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

**Sources**

ESIS : European chemical Substances Information System  
 ECHA Portal  
 Safety data sheets from raw material suppliers

**\* Data compared to the previous version altered.**

Additions, deletions, revisions