

## SAFETY DATA SHEET

## HARDENER 1.0

## SECTION 1: Identification

## 1.1. Product identifier

## Trade name

HARDENER 1.0

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

## ▼ Relevant identified uses of the substance or mixture

Hardener for 2-component surface treatment of floors.  
Restricted to professional users.

## Uses advised against

None known.

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

## Company and address

**Junckers Industrier A/S**

Vaerftsvej 4  
4600 Koege  
Denmark  
Tel. +45 70 80 30 00

## E-mail

productsafety@junckers.dk

## SDS date

9/1/2023

## SDS Version

1.0

## Date of previous version

6/20/2023 (1.0)

## 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® ([triage.webpoisoncontrol.org](http://triage.webpoisoncontrol.org))  
to get specific guidance for your case  
See also section 4 "First aid measures".

## SECTION 2: Hazard(s) identification

## OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

## 2.1. Classification of the substance or mixture

Flam. Liq. 4; H227, Combustible liquid  
Skin Sens. 1; H317, May cause an allergic skin reaction.  
Acute Tox. 4; H332, Harmful if inhaled.  
STOT SE 3; H335, May cause respiratory irritation.

## 2.2. Label elements

## Hazard pictogram(s)



## Signal word

Warning

## Hazard statement(s)

Combustible liquid (H227)  
May cause an allergic skin reaction. (H317)  
Harmful if inhaled. (H332)

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

May cause respiratory irritation. (H335)

#### Precautionary statement(s)

##### General

-

##### Prevention

Wear eye protection/protective gloves/protective clothing. (P280)

Avoid breathing vapour. (P261)

Avoid release to the environment. (P273)

##### Response

If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)

Call a POISON CENTER/doctor if you feel unwell. (P312)

##### Storage

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

##### Disposal

-

### 2.3. Other hazards

#### Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. ▼ Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Hydrophilic, aliphatic polyisocyanate	CAS No.: 160994-68-3	60-70%	Skin Sens. 1B, H317 Acute Tox. 4, H332 STOT SE 3, H335	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

-

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

#### General information

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

#### Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

#### Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

#### Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to

drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### Burns

Not applicable.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

Call a POISON CENTER/doctor if you feel unwell.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Fire-fighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Combustible liquid

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO<sub>2</sub>)

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

### SECTION 6: Accidental release measures

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

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Use sand, sawdust, soil, vermiculite or similar to collect liquid material. Subsequently, place in a suitable waste container.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

##### Recommended storage material

Always store in containers of the same material as the original container.

##### Liquid class

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Combustible Liquid / Class IIIA (NFPA 30)

**Storage temperature**

Store in cool, dry conditions in well sealed receptacles.

**Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

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

This product should only be used for applications quoted in section 1.2.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

**8.2. Exposure controls**

Control is unnecessary if the product is used as intended.

**General recommendations**

Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

Occupational exposure limits have not been defined for the substances in this product.

**Appropriate technical measures**

Apply standard precautions during use of the product. Avoid inhalation of vapours.

**Hygiene measures**

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

**Measures to avoid environmental exposure**

No specific requirements.

**Individual protection measures, such as personal protective equipment**

**Generally**

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter certified according to a recognized standard such as NIOSH is used.

Use only protective equipment with a recognized certification mark, e.g. the UL mark.

**Respiratory Equipment**

Type	Class	Colour	Standards	
Gas filter A	2 (medium capacity)	Brown	EN14387	

**Skin protection**

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn	-	-	

**Hand protection**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,4	> 480	EN374-2, EN374-3, EN388	

**Eye protection**

Type	Standards	
Safety glasses with side shields	EN166	

## SECTION 9: Physical and chemical properties

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

#### Physical state

Liquid

#### Colour

Colourless

#### Odour

Faint

#### Odour threshold (ppm)

Testing not relevant or not possible due to the nature of the product.

#### pH

Testing not relevant or not possible due to the nature of the product.

#### Density (g/cm<sup>3</sup>)

1,06

#### Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

### Phase changes

#### Melting point (°F)

Testing not relevant or not possible due to the nature of the product.

#### ▼ Softening point/range (waxes and pastes) (°F)

Does not apply to liquids.

#### Boiling point (°F)

-

#### Boiling point (°C)

175

#### Vapour pressure

Testing not relevant or not possible due to the nature of the product.

#### Vapour density

Testing not relevant or not possible due to the nature of the product.

#### Decomposition temperature (°F)

Testing not relevant or not possible due to the nature of the product.

### Data on fire and explosion hazards

#### Flash point (°F)

-

#### Flash point (°C)

61

#### Flammability (°F)

Testing not relevant or not possible due to the nature of the product.

#### Auto-ignition temperature (°F)

-

#### Auto-ignition temperature (°C)

300

#### Explosion limits (% v/v)

Testing not relevant or not possible due to the nature of the product.

### Solubility

#### Solubility in water

Insoluble

#### n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

#### Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

### 9.2. Other information

#### Other physical and chemical parameters

No data available.

#### Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

Harmful if inhaled.

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### Serious eye damage/irritation

Based on available data, the classification criteria are not met.

#### Respiratory sensitisation

Based on available data, the classification criteria are not met.

#### Skin sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Carcinogenicity

Based on available data, the classification criteria are not met.

#### Reproductive toxicity

Based on available data, the classification criteria are not met.

#### STOT-single exposure

May cause respiratory irritation.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.

Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

#### Other information

None known.

## SECTION 12: Ecological information

### 12.1. ▼ Toxicity

Product/substance	Hydrophilic, aliphatic polyisocyanate
Test method:	OECD 203
Species:	Danio rerio
Duration:	96 hours
Test:	LC50
Result:	28,3 mg/l

### 12.2. ▼ Persistence and degradability

Product/substance	Hydrophilic, aliphatic polyisocyanate
Biodegradable:	No

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Test method: OECD 301 F  
 Result: 2 %

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

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

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

**12.6. Other adverse effects**

None known.

**SECTION 13: Disposal considerations**

**RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**

None of the components are listed

**Specific labelling**

**Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.

**SECTION 14: Transport information**

	<b>14.1 UN / ID</b>	<b>14.2 UN proper shipping name</b>	<b>14.3 Hazard class(es)</b>	<b>14.4 PG*</b>	<b>14.5 Env**</b>	<b>Other information:</b>
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**▼ Additional information**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

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

No data available.

**SECTION 15: Regulatory information**

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

**15.2. ▼ U.S. Federal regulations**

**▼ TSCA**

Hydrophilic, aliphatic polyisocyanate is listed in the non-confidential portion

**Clean Air Act**

None of the components are listed

**EPCRA Section 302**

None of the components are listed

**EPCRA Section 304**

None of the components are listed

**EPCRA section 313**

None of the components are listed

**CERCLA**

None of the components are listed

**State regulations**

**California / Prop. 65**

None of the components are listed

**Massachusetts / Right To Know Act**

None of the components are listed

[New Jersey / Right To Know Act](#)

None of the components are listed

[New York / Right To Know Act](#)

None of the components are listed

[Pennsylvania / Right To Know Act](#)

None of the components are listed

[15.4. Restrictions for application](#)

Restricted to professional users.

[15.5. Demands for specific education](#)

No specific requirements.

[15.6. Additional information](#)

Not applicable.

[15.7. Chemical safety assessment](#)

No

[15.8. Sources](#)

1993 Hazardous Substances Law

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: Other information

[Full text of H-phrases as mentioned in section 3](#)

H317, May cause an allergic skin reaction.

H332, Harmful if inhaled.

H335, May cause respiratory irritation.

[The full text of identified uses as mentioned in section 1](#)

None known.

[Abbreviations and acronyms](#)

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act

SCL = A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TSCA = The Toxic Substances Control Act

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

---

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

#### ▼ The safety data sheet is validated by

ULS

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en