

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 26.03.2015

Version number 10

Revision: 28.01.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- **Identification of the substance/preparation:** *Cross linker G / Cross linker M*

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

- SU21 Consumer uses: Private households / general public / consumers

Sector of Use

- SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- **Application of the substance / the mixture** Coating compound/ Surface coating/ paint

1.3 Details of the supplier of the safety data sheet**Company/undertaking identification:**

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(24-Hour-Number)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

GHS07

Acute Tox. 4

H332 Harmful if inhaled.

Skin Sens. 1

H317 May cause an allergic skin reaction.

STOT SE 3

H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Xn; Harmful

R20: Harmful by inhalation.

Xi; Irritant

R37: Irritating to respiratory system.

Xi; Sensitising

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- R43: May cause sensitisation by skin contact.
 R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labelling:**

Hydrophilic aliphatic polyisocyanate
 hexamethylene-di-isocyanate

- **Hazard statements**

H332 Harmful if inhaled.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.
 H412 Harmful to aquatic life with long lasting effects.

- **Precautionary statements**

P280 Wear protective gloves / eye protection.
 P362 Take off contaminated clothing.
 P405 Store locked up.

- **Additional information:**

EUH204 Contains isocyanates. May produce an allergic reaction.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

160994-68-3	Hydrophilic aliphatic polyisocyanate <input checked="" type="checkbox"/> Xn R20; <input checked="" type="checkbox"/> Xi R37; <input checked="" type="checkbox"/> Xi R43 R52/53 <input checked="" type="checkbox"/> Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	50-100%
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- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

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- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
After each cleaning use treatment creams, for very dry skin greasy ointments.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Call a doctor immediately.
Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture** Danger of forming toxic pyrolysis products.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Mouth respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
Ensure adequate ventilation
- **6.2 Environmental precautions:**
Prevent from spreading (e.g. by damming-in or oil barriers).
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Avoid contact with the eyes and skin.
Follow instructions on the label and in the Technical Product Information Sheet.

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Wear protective equipment. Keep unprotected persons away.

Do not inhale gases / fumes / aerosols.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about fire - and explosion protection:**

No special precautions are necessary if used correctly.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store only in unopened original receptacles.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Store under lock and key and out of the reach of children.

Keep container tightly sealed.

Store receptacle in a well ventilated area.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Exposure limit values:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Occupational exposure controls:**

· **General protective and hygienic measures:**

Clean skin thoroughly immediately after handling the product.

Do not eat, drink, smoke or sniff while working.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

· **Respiratory protection:** Not necessary if room is well-ventilated.

· **Protection of hands:** Impervious gloves

· **Material of gloves**

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

· **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.

· **Eye protection:**

Where there is a danger of the eyes coming into contact with splashes of liquid (i.e. when refilling larger quantities), safety goggles according to EN 166 (i.e. goggles with side shields) are recommended.

· **Body protection:** Light weight protective clothing

· **Limitation and supervision of exposure into the environment**

Follow instructions for use, dosage and waste disposal.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid

Colour: Colourless

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· Odour:	Ester-like
· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	65 °C (Seta Flash Closed Cup)
· Flammability (solid, gaseous):	Undetermined.
· Ignition temperature:	165 °C
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	0.9 Vol %
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.075 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C:	26 s (DIN 53211/4)
· Solvent content:	
Organic solvents:	30.0 %
VOC (EC)	30.00 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Conditions to avoid:** No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with alcohols, amines, aqueous acids and alkalis.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Reacts with water gently forming carbon dioxide. In case of moisture access pressure build-up and danger of bursting in closed packings.
- **10.6 Hazardous decomposition products:** Danger of forming toxic pyrolysis products.

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SECTION 11: Toxicological information· **11.1 Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values relevant for classification:****822-06-0 hexamethylene-di-isocyanate**

Oral LD50 738 mg/kg (rat)

Dermal LD50 593 mg/kg (rat)

· **Primary irritant effect:**· **on the skin:** No data available.· **on the eye:** No data available.· **Sensitisation:** Sensitisation possible through skin contact.· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

· **Repeated dose toxicity** Undetermined.· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** Undetermined.**SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:** Undetermined.· **12.2 Persistence and degradability** The solvent is biodegradable.· **12.3 Bioaccumulative potential** Undetermined.· **12.4 Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Harmful to fish· **Additional ecological information:**· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow to reach ground water/water course. Do not allow undiluted product or large quantities of it to reach sewage system.

Harmful to aquatic organisms

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation**

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

08 05 01* waste isocyanates

· **Uncleaned packaging:**· **Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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Packagings that may not be cleansed are to be disposed of in the same manner as the product.

- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
People who suffer from allergies, asthma, chronic or recurring respiratory illnesses should not be deployed in any process using the product.
- **Other regulations, limitations and prohibitive regulations**
Other regulations (EC): Directive 2004/42/EC
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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**
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.
R20 Harmful by inhalation.
R37 Irritating to respiratory system.
R43 May cause sensitisation by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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· Training hints ---**· Recommended restriction of use**

Not intended for spraying and industrial processing.

Restricted to professional users.

People who suffer from allergies, asthma, chronic or recurring respiratory illnesses should not be deployed in any process using the product.

· Department issuing MSDS: Department for product development**· Contact:** Dr. Reindl**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

· Sources Safety data sheet for raw materials, eur-lex.europa.eu**· * Data compared to the previous version altered.**