

Safety data sheet according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

- **1.1 Product identifier**
 - Trade name **Jowat 195.60**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
 - **Application of the substance / the mixture**
Hardener/ Curing agent
Cross-linker
 - **Uses advised against** Restricted to professional users.
- **1.3 Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
Jowat SE
Ernst-Hilker-Str. 10 - 14; D - 32758 Detmold
Fon +49 (0)5231 749 0
e-mail: info@jowat.de
www.jowat.de
 - **Department issuing data specification sheet:**
Environmental management
Tel. +49 5231 749 -218 / -211 / -5460 / -5374
e-mail: umweltmanagement@jowat.de
 - **Department providing the information:**
Jowat UK Ltd.
Lymedale Business Centre
Lymedale Business Park
Hooters Hall Road
Newcastle-under-Lyme
Staffordshire
ST5 9QF
Phone: +44 1782 565265
E-mail: nick.orton@jowat.co.uk
- **1.4 Emergency telephone number:**
Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**



health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Carc. 2 H351 Suspected of causing cancer.
 STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H332 Harmful if inhaled.
 Skin Irrit. 2 H315 Causes skin irritation.
 Eye Irrit. 2 H319 Causes serious eye irritation.
 Skin Sens. 1 H317 May cause an allergic skin reaction.
 STOT SE 3 H335 May cause respiratory irritation.

(Contd. on page 2)

Safety data sheet according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 1)

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

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

· Hazard pictograms



GHS07 GHS08

· Signal word Danger

· Hazard-determining components of labelling:

diphenylmethane diisocyanate

· Hazard statements

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

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

P501 Dispose of contents / container to approved waste disposal or recycling in accordance with national regulations.

· Additional information:

Contains isocyanates. May produce an allergic reaction.

As from 24 August 2023 adequate training is required before industrial or professional use.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description:

cross linking agent

Isocyanate resin

· Dangerous components:

CAS: 9016-87-9 NLP: 500-079-6 registration number: 01-2119457024-46	diphenylmethane diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	>50%
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· Additional information

If any R-phrases (risk-phrases) are listed, please refer for the exact wording to section 16.

(Contd. on page 3)

Safety data sheet according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 2)

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information

Instantly 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.

· After inhalation

Supply fresh air and contact physician for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

Supply fresh air; consult physician in case of symptoms.

· After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult physician.

· After swallowing

In case of persistent symptoms consult physician.

· 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, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· For safety reasons unsuitable extinguishing agents

Water with a full water jet.

· 5.2 Special hazards arising from the substance or mixture

Formation of poisonous gases during heating or in fires.

Can be released in case of fire

Nitrogen oxides (NO_x)

Carbon monoxide (CO)

· 5.3 Advice for firefighters

· Protective equipment:

Wear self-contained breathing apparatus.

Put on breathing apparatus.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

· 6.2 Environmental precautions: No special measures required.

· 6.3 Methods and material for containment and cleaning up:

Dispose of contaminated material as waste according to item 13.

Collect mechanically.

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 information on disposal.

* SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Thorough dedusting.

Store in cool, dry place in tightly closed containers.

Use only in well ventilated areas.

· Information about protection against explosions and fires: Keep breathing equipment ready.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage

· Requirements to be met by storerooms and containers: No special requirements.

(Contd. on page 4)

Safety data sheet according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 3)

- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

- **Components with critical values that require monitoring in the workplace:**

9016-87-9 diphenylmethane diisocyanate

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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- **Regulatory information** WEL: EH40/2020
- **Additional information:** The lists that were valid during the compilation were used as basis.

· 8.2 Exposure controls

- **Appropriate engineering controls** No further data; see item 7.
- **Additional information about design of technical systems:** No further data; see item 7.
- **Individual protection measures, such as personal protective equipment**
 - **General protective and hygienic measures**
Standard precautionary measures for handling chemicals are to be observed.
Keep away from food, beverages and animal feed.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of work.
Store protective clothing separately.
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Do not eat or drink while working.
 - **Breathing equipment:**
Use breathing protection in case of insufficient ventilation (EN 14387).
Short term filter device:
Filter A/B/P2.
In case of brief exposure or low pollution use breathing filter apparatus (EN 136). In case of intensive or longer exposure use breathing apparatus that is independent of circulating air (EN 137).
 - **Hand protection** Impervious gloves (EN 374).
 - **Material of gloves**
Recommended thickness of the material: ≥ 0.4 mm
Nitrile rubber, NBR
 - **Penetration time of glove material** Value for the permeation: Level ≤ 6
 - **Gloves made of the following material are suitable for the permanent contact with this material in work areas which do not have an above-average risk of injury (e.g. laboratories):**
PVC gloves
Butyl rubber, BR
 - **For the permanent contact gloves made of the following materials are suitable:**
Butyl rubber, BR
 - **For permanent contact of max. 15 minutes, gloves made of the following materials are suitable:**
Nitrile rubber, NBR
 - **To protect against splashing, gloves made of the following materials are suitable:**
Chloroprene rubber, CR
 - **Not suitable are gloves made of the following materials:** Natural rubber, NR
- **Eye/face protection**
Tightly sealed safety glasses (EN 166).
Safety glasses

(Contd. on page 5)

Safety data sheet

according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 4)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

· Physical state	Solid.
· Colour:	Dark brown
· Smell:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	5-10 °C
· Boiling point or initial boiling point and boiling range	>280 °C
· Flammability	Product is not inflammable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	204 °C
· Ignition temperature:	>600 °C
· Decomposition temperature:	Not determined.
· pH	Mixture reacts violently with water.
· Viscosity:	
· Kinematic viscosity	Not applicable.
· dynamic at 20 °C:	170-250 mPas
· Solubility	
· Water:	Insoluble
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure at 20 °C:	11 hPa
· Density and/or relative density	
· Density at 20 °C	1.22 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.

9.2 Other information

VOC - Volatile Organic Compounds

· European Union	0.00 %
· Switzerland	0.00 %
· U.S.A (less water and less exempts)	0.0 g/l / 0.00 lb/gal

Appearance:

· Form:	Fluid
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Important information on protection of health and environment, and on safety.

· Spontaneous combustion:	Product does not undergo spontaneous combustion.
· Explosive properties:	Product is not explosive.
· Solvent content:	
· Organic solvents:	0.0 %
· Solid content:	100.0 %
· Molecular weight	250.26 g/mol
· Change in condition	
· Evaporation rate	Not applicable.

Information with regard to physical hazard classes

· Explosives	not applicable
· Flammable gases	not applicable
· Aerosols	not applicable
· Oxidising gases	not applicable
· Gases under pressure	not applicable
· Flammable liquids	not applicable
· Flammable solids	not applicable

(Contd. on page 6)

Safety data sheet

according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 5)

· Self-reactive substances and mixtures	not applicable
· Pyrophoric liquids	not applicable
· Pyrophoric solids	not applicable
· Self-heating substances and mixtures	not applicable
· Substances and mixtures, which emit flammable gases in contact with water	not applicable
· Oxidising liquids	not applicable
· Oxidising solids	not applicable
· Organic peroxides	not applicable
· Corrosive to metals	not applicable
· Desensitised explosives	not applicable

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
 - **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Inflammable gases/vapours
Carbon monoxide and carbon dioxide

* SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
 - **Acute toxicity** Harmful if inhaled.

· **LD/LC50 values that are relevant for classification:**

9016-87-9 diphenylmethane diisocyanate

Oral	LD50 oral	10,000 mg/kg (rat)
Dermal	LD50 dermal	10,000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	1.5 mg/l (rat)

- **to the skin:** Causes skin irritation.
- **to the eye:** Causes serious eye irritation.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
- **Carcinogenicity** Suspected of causing cancer.
- **STOT-single exposure** May cause respiratory irritation.
- **STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

* SECTION 12: Ecological information

- **12.1 Toxicity**

· **Aquatic toxicity:**

9016-87-9 diphenylmethane diisocyanate

LC50 / 96 h	>1,000 mg/l (zebrafish)
LC0	>1,000 mg/l (zebrafish) (OECD 203)
EC50 / 24 h	>1,000 mg/l (water flea) (OECD 202)
EC50 / 3 h	>100 mg/l (activated sludge) (OECD 209)
	>100 mg/l (pseudomonas putida)

(Contd. on page 7)

Safety data sheet according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 6)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
 - **PBT:** Not applicable.
 - **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
 - **Additional ecological information:**
 - **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow the product to reach ground water, open water or the sewer system, undiluted or in large quantities.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
 - **Recommendation** Hand over to disposers of hazardous waste.
- **Uncleaned containers/packaging material:**
 - **Recommendation:**
Packaging with cured adhesive residues can be recycled.
Packaging with cured adhesive residues can be treated as household waste.
Packaging with uncured adhesive residues must be disposed of as hazardous waste.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, ADN, IMDG, IATA 	not applicable
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA 	not applicable
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class 	not applicable
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	not applicable
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · 14.6 Special precautions for user 	Not applicable.
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	Not dangerous according to the above specifications.
<ul style="list-style-type: none"> · UN "Model Regulation": 	not applicable

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. They shall, however, not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

All standard industrial precautions apply, concerning protection of health, and safe handling. The

(Contd. on page 8)

Safety data sheet according to UK REACH Regulation

Printing date 19.01.2023

Version number 62 (replaces version 61)

Revision: 19.01.2023

Trade name Jowat 195.60

(Contd. from page 7)

recommendations have to be examined in the context of the application for which the product is intended, and observed as necessary.

- **Relevant phrases**

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- EUH204 Contains isocyanates. May produce an allergic reaction.

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international 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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

- *** Data modified in comparison to the previous version.**