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

1.1 Product identifier

Trade name/designation OP-Coat 300 Part B

Art-Nr. PU-C-B-300

Unique Formula Identifier UFI: 646P-C7YA-E2G6-2E11

Hazard components
Poly(hexamethylene)diisocyanate / HDI oligomers, hexamethylene-di-isocyanate

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

Use of the substance/mixture
Curing agent

1.3 Details of the supplier of the safety data sheet

Supplier
H2N TRADING GmbH
Bgm.-Bombeck-Str. 1
D-22851 Norderstedt
Telephone +49 (0)40 308 598 51
Telefax +49 (0)40 308 598 53
E-mail info@h2n-trading.de
Website www.h2n-trading.de

Department responsible for information:
Telephone +49 (0)40 308 598 51

1.4 Emergency telephone number

Giftinformationszentrale Göttingen GIZ-Nord	+49(0)551/ 19 240
	24/7
H2N TRADING GmbH	+49 (0)40 308 598 51
	Only available during office hours: Monday to Friday from 9.00 am to 5.00 pm.

* SECTION 2: Hazards identification

* 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Acute Tox. 4, H332	
Skin Irrit. 2, H315	
Eye Irrit. 2, H319	
Skin Sens. 1, H317	
STOT SE 3, H335	

Hazard statements for health hazards
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Remark
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

* **2.2 Label elements**

* **Labelling according to Regulation (EC) No 1272/2008 [CLP]**

Hazard components
Poly(hexamethylene)diisocyanate / HDI oligomers, hexamethylene-di-isocyanate

Hazard pictograms

GHS07

Signal word
Warning

Hazard statements
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

* **Precautionary statements**
P102 Keep out of reach of children.
P260 Do not breathe mist/vapours/spray.
P280 Wear protective gloves/protective clothing and eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P315 Get immediate medical advice/attention.
P501 Dispose of contents/container to a licensed disposal company.

* **Special rules on packaging**
Tactile warning according to EN/ISO 11683.

* **Additional information**
Flammable liquid. Reacts with water to release carbon dioxide (CO_2).
< 0.1% hexamethylene diisocyanate is contained in poly(hexamethylene) diisocyanate / HDI oligomers as impurity / residue.

2.3 Other hazards

Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

* SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

* 3.2 Mixtures

* Hazardous ingredients

CAS No	EC No	Index No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
28182-81-2	500-060-2		Poly(hexamethylene)diisocyanate / HDI oligomers	95 < 98 weight-%	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335	ATE(oral): > 2500 mg/kg ATE(dermal): > 2000 mg/kg ATE(dermal): ≤ 2000 mg/kg ATE(inhalation gas): 0.39 mg/L
9046-01-9			Polyoxyethylene tridecyl ether phosphate	1 < 3 weight-%	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	
98-94-2	202-715-5		N,N-Dimethylcyclohexanamin	< 1 weight-%	Flam. Liq. 3; H226 Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Skin Corr. 1B; H314 Aquatic Chronic 2; H411	ATE(oral): 272 mg/kg ATE(dermal): 380 mg/kg ATE(Acute inhalation toxicity): 1.7- 5.8 mg/L
822-06-0	212-485-8	615-011-00-1	hexamethylene-di-isocyanate	< 0.1 weight-%	Acute Tox. 3 ; H331 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	Resp. Sens. 1;H334: C>=0.5% Skin Sens. 1;H317: C>=0.5% ATE(oral): 959 mg/kg bw ATE(dermal): > 7000 mg/kg ATE(Acute inhalation toxicity): 0.124 mg/L

REACH No.	Substance name
01-2119485796-17-XXXX	Poly(hexamethylene)diisocyanate / HDI oligomers
01-2119533030-60-XXXX	N,N-Dimethylcyclohexanamin
01-2119457571-37-XXXX	hexamethylene-di-isocyanate

* Additional information

The oligomer ‘Poly(hexamethylene)diisocyanate / HDI oligomers)’ does not meet the definition of diisocyanates. The regulations on the use and marketing of diisocyanates in accordance with the REACH Regulation therefore do not apply.

* SECTION 4: First aid measures

* 4.1 Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Remove contaminated, saturated clothing immediately.

Following inhalation

Provide fresh air.
In case of irregular breathing or respiratory arrest initiate artificial respiration.
In case of inhalation remove the casualty into fresh air and seek medical advice.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap.
In case of skin reactions, consult a physician.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water.
Remove contact lenses.
In case of eye irritation consult an ophthalmologist.

* **Following ingestion**
Do NOT induce vomiting.
Rinse mouth immediately and drink plenty of water.
Consult a physician.

* **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**

No data available

* SECTION 5: Firefighting measures

* **5.1 Extinguishing media**

* **Suitable extinguishing media**
Dry extinguishing powder
Carbon dioxide (CO_2)
alcohol resistant foam

* **Unsuitable extinguishing media**
Water

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

* **Hazardous combustion products**
In the case of thermal decomposition formation of dangerous gases possible.

5.3 Advice for firefighters

Special protective equipment for firefighters
In case of fire: Wear self-contained breathing apparatus.
Protective clothing.

Additional information
Use water spray jet to protect personnel and to cool endangered containers.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Ensure adequate ventilation / exhaustion at the workplace.
Keep people away and stay on the upwind side.
Avoid skin and eye contact.
Use personal protection equipment.
Do not breathe gas / fumes / vapor / spray.
Use breathing apparatus if exposed to vapors / spray.

6.2 Environmental precautions

Do not seep away runed out product into ground or body of water.
Do not allow to enter into surface water or drains.
If the product contaminates soil, waterways or drains inform the corresponding authorities.

6.3 Methods and material for containment and cleaning up

For containment
Ensure adequate ventilation.
Stam and take up with absorbent material (e.g. sand, soil, vermiculite).
Send in suitable containers for recovery or disposal.
After taking up the material dispose according to regulation.

6.4 Reference to other sections

Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

* SECTION 7: Handling and storage

* 7.1 Precautions for safe handling

* **Protective measures**
Keep container tightly closed.
Do not allow this material to come into contact with water (or humid air).
If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.
Do not inhale polishing dust.
Protect from heat and direct sunlight.
Keep in a cool, well-ventilated place.
Avoid:
Eye contact
Skin contact
Do not inhale gases/vapours/aerosols.

Advices on general occupational hygiene
Thorough skin-cleansing after handling the product.
Apply skin care products after work.
When using do not eat, drink, smoke, sniff.
Remove contaminated, saturated clothing immediately.
Work in rooms with good ventilation.
Wash hands before breaks and after work.
Use protective skin cream before handling the product.

* 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container.
Keep container tightly closed.

Further information on storage conditions
Store and transport separate of food.

7.3 Specific end use(s)

No data available

* SECTION 8: Exposure controls/personal protection

* 8.1 Control parameters

*** Occupational exposure limit values**

CAS No	EC No	Substance name	occupational exposure limit value
822-06-0	212-485-8	Hexamethylene diisocyanate (HDI)	0,005 (1) [ml/m³(ppm)] (1) as NCO (IE)

*** DNEL worker**

CAS No	Substance name	DNEL value	DNEL type	Remark
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	1 mg/m³	acute inhalative (local)	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	0.5 mg/m³	long-term inhalative (local)	
822-06-0	hexamethylene-di-isocyanate	0.07 mg/m³	acute inhalative (local)	
822-06-0	hexamethylene-di-isocyanate	1 mg/m³	acute inhalative (local)	Most critical endpoint: irritation (respiratory tract)
822-06-0	hexamethylene-di-isocyanate	0.035 mg/m³	long-term inhalative (local)	
822-06-0	hexamethylene-di-isocyanate	0.5 mg/m³	long-term inhalative (local)	Most critical endpoint: irritation (respiratory tract)
98-94-2	N,N-Dimethylcyclohexanamin	35 mg/m³	acute inhalative (local)	
98-94-2	N,N-Dimethylcyclohexanamin	0.2 mg/m³	long-term inhalative (local)	

*** PNEC**

CAS No	Substance name	PNEC Value	PNEC type	Remark
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	127 µg/L	aquatic, freshwater	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	1270 µg/L	aquatic, intermittent release	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	12.7 µg/L	aquatic, marine water	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	266.7 g/kg	sediment, freshwater	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	266.7 g/kg	sediment, freshwater	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	38.28 mg/L	sewage treatment plant (STP)	
28182-81-2	Poly(hexamethylene)diisocyanate / HDI oligomers	53.2 g/kg	soil	
822-06-0	hexamethylene-di-isocyanate	77.4 µg/L	aquatic, freshwater	
822-06-0	hexamethylene-di-isocyanate	774 µg/L	aquatic, intermittent release	
822-06-0	hexamethylene-di-isocyanate	7.74 µg/L	aquatic, marine water	
822-06-0	hexamethylene-di-isocyanate	0.01334 mg/kg dw	sediment, freshwater	
822-06-0	hexamethylene-di-isocyanate	0.001334 mg/kg dw	sediment, marine water	

CAS No	Substance name	PNEC Value	PNEC type	Remark
822-06-0	hexamethylene-di-isocyanate	8.42 mg/L	sewage treatment plant (STP)	
822-06-0	hexamethylene-di-isocyanate	0.0026 mg/kg dw	soil	
98-94-2	N,N-Dimethylcyclohexanamin	2 µg/L	aquatic, freshwater	
98-94-2	N,N-Dimethylcyclohexanamin	0.2 µg/L	aquatic, marine water	
98-94-2	N,N-Dimethylcyclohexanamin	21.1 µg/kg dw	sediment, freshwater	
98-94-2	N,N-Dimethylcyclohexanamin	2.11 µg/kg dw	sediment, marine water	
98-94-2	N,N-Dimethylcyclohexanamin	20.6 mg/L	sewage treatment plant (STP)	
98-94-2	N,N-Dimethylcyclohexanamin	3.05 µg/kg dw	soil	

*** 8.2 Exposure controls**

Appropriate engineering controls

Technical measures to prevent exposure
Ensure good ventilation, where necessary use fume hood.

*** Personal protection equipment**

*** Eye/face protection**
tightly fitting goggles

*** Hand protection**
The selection of the suitable gloves does not only depend on different material, but also on further marks of quality and varies from manufacturer to manufacturer.
Suitable material:
NBR (Nitrile rubber)
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

*** Body protection:**
Protective clothing

Respiratory protection
Not necessary if the ventilation is sufficient.
Respiratory protection necessary at:
insufficient exhaust
prolonged exposure
Breathing apparatus if sanding dust occurs.

* SECTION 9: Physical and chemical properties

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

Physical state
liquid

*** Colour**
colourless
yellowish

* **Odour**
odourless

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:	not determined		
Melting point/freezing point	not determined		
Boiling point or initial boiling point and boiling range	> 150 °C		
flammability	not determined		
Lower and upper explosion limit	not determined		
Flash point	160 °C		
Auto-ignition temperature	not determined		
Decomposition temperature	not determined		
pH	not determined		
Viscosity	dynamic 1400 mPa*s (25°C)		
Solubility(ies)	Water solubility		Reacts with water
Solubility(ies)	organic solvents		
Solubility(ies)	Solvent		Hydrocarbons, aromatic Ketones Esters
Partition coefficient n-octanol/water (log value)	not determined		
Vapour pressure	not determined		
Density and/or relative density	1.13 g/cm³ (25°C)		
Relative vapour density	not determined		
particle characteristics	not determined		

9.2 Other information

Other information
see technical data sheet

* SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

* 10.3 Possibility of hazardous reactions

The substance may react dangerously with the substances listed above, among others.

10.4 Conditions to avoid

Protect from frost, heat and direct sunlight.

* 10.5 Incompatible materials

Oxidising agent
Alcohols
Amines
Alkali (lye)
Water

* 10.6 Hazardous decomposition products

Concerning possible decomposition products see section 5.
Carbon dioxide
Nitrogen oxides (NOx)
Nitrogen oxides can react with water vapor to form nitric acid.

* SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

*** Acute toxicity**

*** Animal data**

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers LD50: > 2500 mg/kg Species Rat, female	OECD 423	
	CAS No98-94-2 N,N-Dimethylcyclohexanamin LD50: 272 mg/kg Species Rat		
	CAS No822-06-0 hexamethylene-di-isocyanate LD50: 959 mg/kg bw Species Rat	OECD 401	
Acute dermal toxicity	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers LD50: ≤ 2000 mg/kg Species Rat	OECD 402	
	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers LD50: > 2000 mg/kg Species Rabbit		
	CAS No98-94-2 N,N-Dimethylcyclohexanamin LD50: 380 mg/kg Species Rat	OECD 402	
	CAS No822-06-0 hexamethylene-di-isocyanate LD50: > 7000 mg/kg Species Rat	OECD 402	

	Effective dose	Method,Evaluation	Source, Remark
Acute inhalation toxicity	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers Acute inhalation toxicity (gas) LC50: 0.39 mg/L Species Rat Exposure time 4 h	OECD 403	
	CAS No98-94-2 N,N-Dimethylcyclohexanamin LC50: 1.7- 5.8 mg/L Species Rat Exposure time 6 h	OECD 403	
	CAS No822-06-0 hexamethylene-di-isocyanate LC50: 0.124 mg/L Species Rat Exposure time 4 h	OECD 403	

* **Assessment/classification**
Harmful if inhaled.

* **Skin corrosion/irritation**

* **Assessment/classification**
Irritating to skin.

* **Serious eye damage/irritation**

* **Assessment/classification**
Causes serious eye irritation.

Sensitisation to the respiratory tract

Assessment/classification
No known sensitization.

Skin sensitisation

Assessment/classification
May cause an allergic skin reaction.

Germ cell mutagenicity

not determined

Carcinogenicity

not determined

Reproductive toxicity

not determined

* **STOT-single exposure**

STOT SE 1 and 2

Other information
No effects known.

* **STOT SE 3**

* **Irritation to respiratory tract**

* **Assessment/classification**
May cause respiratory irritation.

Narcotic effects

Assessment/classification
Not classified

STOT-repeated exposure

Other information
No effects known.

Aspiration hazard

Remark
No classification in terms of aspiration.

11.2 Information on other hazards

Information on other hazards

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties		Based on available data, the classification criteria are not met.	

* **Other information**

Special properties/effects: In case of overexposure – especially when spraying isocyanate-containing paints without protective measures – there is a risk of concentration-dependent irritation of the eyes, nose, throat and airways. Delayed onset of symptoms and development of hypersensitivity (breathing difficulties, coughing, asthma) are possible. In hypersensitive individuals, reactions can be triggered even at very low isocyanate concentrations, even below the occupational exposure limit. Prolonged skin contact may cause tanning and irritation.
The product should be handled with the care usual when dealing with chemicals.
Further hazardous properties can not be excluded.

* SECTION 12: Ecological information

* **12.1 Toxicity**

* **Aquatic toxicity**

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers LC50: 8.9 mg/L Species Danio rerio (zebrafish) CAS No9046-01-9 Polyoxyethylene tridecyl ether phosphate LC50: 10 mg/L Species Danio rerio Test duration 96 h		

	Effective dose	Method,Evaluation	Source, Remark
	CAS No98-94-2 N,N-Dimethylcyclohexanamin LC50: 28 mg/L Species Oncorhynchus mykiss (Rainbow trout) Test duration 96 h	OECD 203	
	CAS No822-06-0 hexamethylene-di-isocyanate LC50: 22 mg/L Species Brachydanio rerio Test duration 96 h		
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers EC50 127 mg/L Test duration 48 h		
	CAS No98-94-2 N,N-Dimethylcyclohexanamin EC50 75 mg/L Test duration 48 h	OECD 202	
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers EC50 > 1000 mg/L Species Scenedesmus subspicatus Test duration 72 h		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers EC50 3828 mg/L Species activated sludge Test duration 3 h	OECD 209	

*** 12.2 Persistence and degradability**

	Value	Method	Source, Remark
Biodegradation			CAS No28182-81-2 Poly(hexamethylene)diisocyanate / HDI oligomers Not biodegradable.

*** 12.3 Bioaccumulative potential**

* **Assessment/classification**
Accumulation in organisms is not expected.

* 12.4 Mobility in soil

* **Assessment/classification**
Formation of an insoluble polyurea.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties		Based on available data, the classification criteria are not met.	

12.7 Other adverse effects

Additional ecotoxicological information

Additional information
Ecological data for the mixture are not available.
Discharge into the environment must be avoided.

* SECTION 13: Disposal considerations

* 13.1 Waste treatment methods

* **Waste codes/waste designations according to EWC/AVV**

Waste code product	Waste name
080501 *	waste isocyanates

Waste code packaging	Waste name
150102	plastic packaging
150104	metallic packaging

Appropriate disposal / Product
The waste code number mentioned is only intended as a recommendation.
The used product may have different properties than the unused one. This safety data sheet cannot provide any information on the used product.
Dispose of waste according to applicable legislation.
Dispose of waste according to "Kreislaufwirtschaftsgesetz (KrWG)".
This means that a distinction must be made between "wastes for recycling" and "wastes for disposal". Particular aspects - in the main concerning delivery - are also governed by the German federal states.

Appropriate disposal / Package
Disposal in accordance with local regulations.

Remark
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	-	-	-
14.2 UN proper shipping name	-	-	-

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	-	-	-

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

All transport carriers

No dangerous good in sense of these transport regulations.

* SECTION 15: Regulatory information

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

No data available

15.2 Chemical Safety Assessment

No data available

* SECTION 16: Other information

Indication of changes

* Data changed compared with the previous version

* **Abbreviations and acronyms**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
ECHA: European Chemicals Agency
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
REACH: Registration, Evaluation and Authorization of Chemicals
PNEC: Predicted No Effect Concentration
SCL: Specific concentration limit
STOT: Specific Target Organ Toxicity
DNEL: derived no-effect level
EC50: Effective Concentration 50%
IC50: Inhibition Concentration 50 %
LC50: Lethal (fatal) Concentration 50%
LD50: Lethal (fatal) Dose 50%
SVHC: Substance of Very High Concern
PBT: persistent and bioaccumulative and toxic
vPvB: very persistent, very bioaccumulative
WGK: water hazard class
See overview table at www.euphrac.eu
Flam. Liq. 3: Flammable Liquids, Category 3
Acute Tox. 3, H301: Acute Toxicity (oral), Category 3
Acute Tox. 3, H311: Acute toxicity (dermal), Category 3
Skin Corr. 1B: Skin corrosion, Sub-category 1B
Skin Irrit. 2: Skin irritation, Category 2
Eye Dam. 1: Serious eye damage, Category 1
Eye Irrit. 2: Eye irritation, Category 2
Resp. Sens. 1: Respiratory sensitizer, Category 1
Skin Sens. 1: Skin sensitizer, Category 1
STOT SE 3, H335: Specific target organ toxicity (single exposure), Category 3
Aquatic Chronic 2: Long-term (chronic) aquatic hazard, Category 2
Aquatic Chronic 3: Long-term (chronic) aquatic hazard, Category 3
Acute Tox. 3, H331: Acute Toxicity (inhalation), Category 3
Acute Tox. 4, H332: Acute Toxicity (inhalation), Category 4

Key literature references and sources for data

Data sheets of the sub-supplier.
European Chemicals Agency (ECHA)
Full text of Hazard Statements in Section 3 (NOT classification of the mixture).
IFA, GESTIS International Limit Values Database

* **Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]**

The classification of the mixture was carried out following the calculation method according to the CLP Regulation (1272/2008).

Training advice

See technical data sheet for more information.

Additional information

National and local regulations concerning chemicals shall be observed.
The national special regulations must be implemented by each user on his own responsibility!
The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
Please observe the following disclaimer! Our safety data sheets have been compiled according to effective EU directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Relevant H- and EUH-phrases (Number and full text)

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Indication of changes
* Data changed compared with the previous version