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

1.1. Product identifier

Mixture identification:

Trade name: ULTRABOND P909 2K /B

Trade code: 902324

UFI: 0XC1-00N0-T006-ESDG

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

Recommended use: Adhesive

Uses advised against: Data not available.

1.3. Details of the supplier of the safety data sheet

Company: MAPEI U.K. Ltd - Mapei House Steel Park Road
Halesowen - West Midlands B62 8HD

phone: +44(0)121 508 6970 - fax: +44(0)121 5086 960 - www.mapei.co.uk (office hour 8:30-17:30)

Responsable: sicurezza@mapei.it

1.4. Emergency telephone number

call NHS 111 or a doctor/OHES Environmental Ltd +44(0)333 333 9962

Antipoison Center - Hospital Name 1 - City - Telephone nbr. (availability information)

SECTION 2: Hazards identification



2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Acute Tox. 4	Harmful if inhaled.
Skin Irrit. 2	Causes skin irritation.
Eye Irrit. 2	Causes serious eye irritation.
Resp. Sens. 1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1	May cause an allergic skin reaction.
Carc. 2	Suspected of causing cancer.
STOT SE 3	May cause respiratory irritation.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure.

2 The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word



Danger

Hazard statements

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.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/clothing and eye/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER.

Special Provisions:

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains

diphenylmethanediisocyanate isomers and homologues

diphenylmethane-4,4'-diisocyanate

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate

Special provisions according to Annex XVII of REACH and subsequent amendments:

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

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards: No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Not Relevant

3.2. Mixtures

Mixture identification: ULTRABOND P909 2K /B

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification
≥40 - <50 %	Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate	EC:905-806-4	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373 Specific Concentration Limits: C ≥ 5%: Eye Irrit. 2 H319 C ≥ 5%: STOT SE 3 H335 C ≥ 5%: Skin Irrit. 2 H315 C ≥ 0.1%: Resp. Sens. 1 H334
≥40 - <50 %	diphenylmethanediisocyanate isomers and homologues	CAS:9016-87-9 EC:618-498-9	Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; STOT RE 2, H373; Carc. 2, H351 Specific Concentration Limits: 5% ≤ C < 100%: Skin Irrit. 2 H315 5% ≤ C < 100%: Eye Irrit. 2 H319 C ≥ 0.1%: Resp. Sens. 1,1A,1B H334 C ≥ 5%: STOT SE 3 H335
≥20 - <25 %	diphenylmethane-4,4'-diisocyanate	CAS:101-68-8 EC:202-966-0 Index:615-005-00-9	Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Resp. Sens. 1, H334; Skin Sens. 1, H317; STOT RE 2, H373; Carc. 2, H351 Specific Concentration Limits: 0.1% ≤ C < 100%: Resp. Sens. 1 H334 5% ≤ C < 100%: Skin Irrit. 2 H315 5% ≤ C < 100%: Eye Irrit. 2 H319 5% ≤ C < 100%: STOT SE 3 H335

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose of safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

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

Eye irritation

Eye damages

Skin Irritation

Erythema

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

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

Treatment:

(see paragraph 4.1)

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO_2).

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Wash with plenty of water.

Retain contaminated washing water and dispose it.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Exercise the greatest care when handling or opening the container.

Use localized ventilation system.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

None in particular

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

diphenylmethanediisocyanate isomers and homologues

CAS: 9016-87-9	ACGIH		Long Term: 0.05 ppm
	DFG	GERMANY	Short Term: Ceiling - 0.05 mg/m3
	National	GERMANY	Long Term: 0.05 mg/m3
	National	SLOVENIA	Long Term: 0.05 mg/m3; Short Term: 0.05 mg/m3
	SUVA		Long Term: 0.02 mg/m3; Short Term: 0.02 mg/m3

diphenylmethane-4,4'-diisocyanate

CAS: 101-68-8	ACGIH		Long Term: 0.005 ppm Notes: Resp sens
			Long Term: 0.005 ppm Notes: respiratory sensitization (listed under Methylene bisphenyl isocyanate (MDI))
			Long Term: 0.005 ppm
	EU		Long Term: 0.006 mg/m3; Short Term: 0.012 mg/m3
	Malaysia OEL	MALAYSIA	Long Term: 0.051 mg/m3 - 0.005 ppm
	DFG	GERMANY	Short Term: Ceiling - 0.05 mg/m3
	National	AUSTRIA	Long Term: 0.05 mg/m3 - 0.005 ppm; Short Term: 0.1 mg/m3 - 0.01 ppm
	National	BELGIUM	Long Term: 0.052 mg/m3 - 0.005 ppm
	National	CZECH REPUBLIC	Long Term: 0.03 mg/m3; Short Term: 0.06 mg/m3
	National	GERMANY	Long Term: 0.05 mg/m3
	National	DENMARK	Long Term: 0.05 mg/m3 - 0.005 ppm
	National	SPAIN	Long Term: 0.052 mg/m3 - 0.005 ppm
	National	ESTONIA	Long Term: 0.05 mg/m3 - 0.005 ppm; Short Term: 0.1 mg/m3 - 0.01 ppm
	National	FRANCE	Long Term: 0.1 mg/m3 - 0.01 ppm; Short Term: 0.2 mg/m3 - 0.02 ppm

National	HUNGARY	Long Term: 0.05 mg/m3; Short Term: 0.05 mg/m3
National	LITHUANIA	Long Term: 0.05 mg/m3 - 0.005 ppm
		Short Term: Ceiling - 0.1 mg/m3 - 0.01 ppm
National	NORWAY	Long Term: 0.05 mg/m3 - 0.005 ppm; Short Term: 0.01 ppm Notes: A 4
		Long Term: 0.05 mg/m3 - 0.005 ppm; Short Term: 0.01 ppm
National	POLAND	Long Term: 0.03 mg/m3; Short Term: 0.09 mg/m3
National	PORTUGAL	Long Term: 0.005 ppm
National	ROMANIA	Short Term: 0.15 mg/m3
National	SLOVAKIA	Long Term: 0.002 mg/m3
		Long Term: 0.03 mg/m3
National	SLOVENIA	Long Term: 0.05 mg/m3; Short Term: 0.05 mg/m3
		Long Term: 0.05 mg/m3 - 0.005 ppm; Short Term: 0.05 mg/m3 - 0.005 ppm
National	SWEDEN	Long Term: 0.03 mg/m3 - 0.002 ppm; Short Term: Ceiling - 0.05 mg/m3 - 0.005 ppm Notes: SWEDEN, Ceiling limit value
		Long Term: 0.03 mg/m3 - 0.002 ppm
SUVA		Long Term: 0.02 mg/m3; Short Term: 0.02 mg/m3
NDS		Long Term: 0.03 mg/m3
NDS	POLAND	Long Term: 0.03 mg/m3
NDSCh	POLAND	Short Term: 0.09 mg/m3
NDSP		Long Term: 0.09 mg/m3

Predicted No Effect Concentration (PNEC) values

diphenylmethane-4,4'-diisocyanate

CAS: 101-68-8 Exposure Route: Fresh Water; PNEC Limit: 1 mg/l

Exposure Route: Marine water; PNEC Limit: 0.1 mg/l

Exposure Route: Soil; PNEC Limit: 1 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l

Exposure Route: Intermittent release; PNEC Limit: 10 mg/l

Derived No Effect Level (DNEL) values

diphenylmethane-4,4'-diisocyanate

CAS: 101-68-8 Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Worker Industry: 50 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 0.1 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Industry: 0.1 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 0.05 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Industry: 0.05 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Consumer: 25 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Consumer: 0.05 mg/m3

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 20 mg/kg

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Consumer: 0.05 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Consumer: 0.025 mg/m3

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Consumer: 0.025 mg/m3

Exposure Route: Human Dermal; Exposure Frequency: Short Term, local effects

Worker Industry: 28.7 mg/cm2; Consumer: 17.2 mg/cm2

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use contact lenses.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Suitable materials for safety gloves; EN ISO 374:

Polychloroprene - CR: thickness >=0,5mm; breakthrough time >=480min.

Nitrile rubber - NBR: thickness >=0,35mm; breakthrough time >=480min.

Butyl rubber - IIR: thickness >=0,5mm; breakthrough time >=480min.

Fluorinated rubber - FKM: thickness >=0,4mm; breakthrough time >=480min.

Neoprene gloves are suggested (0,5 mm) not recommended gloves: not waterproof gloves

Gloves characteristics:

Appropriate gloves thickness and breakthrough time may differ depending on the specific use conditions. Make sure to use protective gloves adequate to the conditions of use.

CEN standard(s) information:

Suitable protective gloves must comply with the appropriate EN 374 standard(s)

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Respiratory protection must be used where exposure levels exceed workplace exposure limits. Refer to appropriate EN standards, like EN 136, 140, 143, 149, 14387 for information on selection and use of appropriate respiratory protection equipment.

In case of insufficient ventilation use mask with ABEKP filters (EN 14387).

Use adequate protective respiratory equipment.

Hygienic and Technical measures

Not available

Appropriate engineering controls:

Not available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	various
Odour:	Characteristic
Odour threshold:	No data available
pH:	Not Relevant
Kinematic viscosity:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flash point:	150 °C (302 °F)
Lower and upper explosion limit:	No data available
Relative vapour density:	No data available
Vapour pressure:	No data available
Density and/or relative density:	1.22 g/cm3
Solubility in water:	reacts with water
Solubility in oil:	No data available
Partition coefficient n-octanol/water (log value):	No data available
Auto-ignition temperature:	No data available

Decomposition temperature:	No data available
Flammability:	No data available
Volatile Organic compounds - VOCs =	No data available

Particle characteristics:

Particle size:	No data available

9.2. Other information

Evaporation rate:	No data available

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

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

Toxicological Information of the Preparation

a) acute toxicity	The product is classified: Acute Tox. 4(H332)
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Irrit. 2(H319)
d) respiratory or skin sensitisation	The product is classified: Resp. Sens. 1(H334), Skin Sens. 1(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	The product is classified: Carc. 2(H351)
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H335)
i) STOT-repeated exposure	The product is classified: STOT RE 2(H373)
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate

	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg
		LD50 Skin Rabbit > 9400 ml/kg

diphenylmethanediisocyanate isomers and homologues

CAS: 9016-87-9	a) acute toxicity	LD50 Oral Rat > 10000 mg/kg
		LD50 Skin Rabbit > 9400 mg/kg
		LD50 Skin Rabbit > 9.4 g/kg
		LD50 Oral Rat = 49 g/kg
	g) reproductive toxicity	NOAEL Inhalation Rat = 12 mg/m3

diphenylmethane-4,4'-diisocyanate

CAS: 101-68-8	a) acute toxicity	LD50 Oral Rat > 2000 mg/kg
	f) carcinogenicity	Carcinogenicity Inhalation Rat = 6 mg/m3 Notes: 2 y

g) reproductive toxicity NOAEL Inhalation Rat = 12 mg/m3
Notes: 20 d

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

Based on available data, the classification criteria are not met

List of Eco-Toxicological properties of the components

Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate

a) Aquatic acute toxicity: LC50 Fish > 1000 mg/L

a) Aquatic acute toxicity: LC50 Daphnia > 1000 mg/L

a) Aquatic acute toxicity: EC50 Algae = 1640 mg/L 72h

diphenylmethanediisocyanate isomers and homologues

CAS: 9016-87-9

a) Aquatic acute toxicity: LC50 Fish > 1000 mg/L 96

a) Aquatic acute toxicity: EC50 Daphnia > 1000 mg/L 24

b) Aquatic chronic toxicity: NOEC Daphnia > 10 mg/L - 21 d

a) Aquatic acute toxicity: EC50 Algae > 1640 mg/L 72

c) Bacteria toxicity: EC50 > 100 mg/L 3

d) Terrestrial toxicity: NOEC > 1000 mg/kg - 14 d

e) Plant toxicity: NOEC > 1000 mg/kg - 14 d

diphenylmethane-4,4'-diisocyanate

CAS: 101-68-8

a) Aquatic acute toxicity: LC50 Fish > 1000 mg/L 96

a) Aquatic acute toxicity: EC50 Daphnia > 1000 mg/L 24

b) Aquatic chronic toxicity: NOEC Daphnia > 10 mg/L - 21 d

a) Aquatic acute toxicity: EC50 Algae > 1640 mg/L 72

c) Bacteria toxicity: EC50 > 100 mg/L 3

d) Terrestrial toxicity: NOEC > 1000 mg/kg - 14 d

e) Plant toxicity: NOEC > 1000 mg/kg - 14 d

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

N.A.

Not available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Hazardous waste: Yes

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

Not Applicable

14.2. UN proper shipping name

Not Applicable

14.3. Transport hazard class(es)

Not Applicable

14.4. Packing group

Not Applicable

14.5. Environmental hazards

Not Applicable

14.6. Special precautions for user

Not Applicable

Road and Rail (ADR-RID):

ADR-Hazard identification number: NA

Not Applicable

Air (IATA):

Not Applicable

Sea (IMDG):

Not Applicable

14.7. Maritime transport in bulk according to IMO instruments

Not Applicable

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EU) n. 2020/878

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
Regulation (EU) n. 2023/707
Regulation (EU) n. 2023/1434 (ATP 19 CLP)
Regulation (EU) n. 2023/1435 (ATP 20 CLP)
Regulation (EU) n. 2024/197 (ATP 21 CLP)
Regulation (EU) n. 2024/2564 (ATP 22 CLP)
Regulation (EU) n. 2024/2865
Regulation (EU) n. 2025/1222 (ATP 23 CLP)

Provisions related to directive EU 2012/18 (Seveso III):

None

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: 3

Restrictions related to the substances contained: 56, 74, 75

SVHC Substances:

SVHC substances not present in a concentration ≥ 0.1% (w/w)

National regulations

Produktregisteret Norge: 663288

MAL-kode: 00-3; A+B(90:10)=00-3 (1993)

Lagerklasse (TRGS-510): 12 - Non-combustible liquids, that cannot be assigned to any of the aforementioned LGK

German Water Hazard Class.

Class 1: slightly hazardous for water.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
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.
H351	Suspected of causing cancer if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.

Code	Hazard class and hazard category	Description
3.1/4/Inhal	Acute Tox. 4	Acute toxicity (inhalation), Category 4
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.1/1	Resp. Sens. 1	Respiratory Sensitisation, Category 1
3.4.1/1-1A-1B	Resp. Sens. 1,1A,1B	Respiratory Sensitisation, Category 1,1A,1B
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.6/2	Carc. 2	Carcinogenicity, Category 2
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Acute Tox. 4, H332	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Resp. Sens. 1, H334	Calculation method
Skin Sens. 1, H317	Calculation method
Carc. 2, H351	Calculation method
STOT SE 3, H335	Calculation method

STOT RE 2, H373 Calculation method

If appropriate, specific provisions in relation to possible training for workers are mentioned in section 2. Any training related to safety in the workplace must in any case refer to a risk assessment that must be carried out by a company safety officer taking into account the specific operating and environmental conditions in which the products are used.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

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

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: Keep Away From Heat

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/A: Not Applicable

N/D: Not defined/ Not available

NA: Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- Safety Data Sheet
- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 3: Composition/information on ingredients
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 15: Regulatory information