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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

Revision date / version: 02.07.2025 / 0001

Replacing version dated / version: 02.07.2025 / 0001

Valid from: 02.07.2025 PDF print date: 02.07.2025 FLUID FILM AS-R black

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

1.1 Product identifier

FLUID FILM AS-R black

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

Corrosion protection

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

Hodt Korrosionsschutz GmbH

Flurstraße 8

21465 Wentorf bei Hamburg

Deutschland

Tel.: 040 729 040 30 Fax: 040 729 040 59 E-Mail: info@hodt.de Homepage: www.hodt.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0)40 729 040 30 (Mo. - Fr. 6.00 - 20.00 h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)
Hazard class Hazard category Hazard statement

Aerosol 1 H222-Extremely flammable aerosol.

Aerosol 1 H229-Pressurised container: May burst if heated.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



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Dango

H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P102-Keep out of reach of children.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use.

P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Without adequate ventilation, formation of explosive mixtures may be possible.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0.1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a.

3.2 Mixtures

Registration number (REACH)	
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	
CAS	
content %	
Classification according to Regulation (EC) 1272/2008 (CLP), M-	
factors	

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.



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Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Typically no exposure pathway.

Rinse the mouth thoroughly with water.

Give copious water to drink - consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water jet spray / alcohol resistant foam / CO2 / dry extinguisher.

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of sulphur

Toxic gases

Possible build up of explosive/highly flammable vapour/air mixture.

Danger of bursting (explosion) when heated

5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.

Without adequate ventilation, formation of explosive mixtures may be possible.

Active substance:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.



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SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid contact with eyes or skin.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Do not use on hot surfaces.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Observe special regulations for aerosols!

Observe special storage conditions.

Do not store with flammable or self-igniting materials.

Keep protected from direct sunlight and temperatures over 50°C.

Store in a well-ventilated place.

Store cool.

7.3 Specific end use(s)

No information available at present.

Observe the instructions for good working practice and the recommendations for risk assessment.

Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries.

depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

© Chemical Name	Butane		
WEL-TWA: 600 ppm (1450 mg/	m3)	WEL-STEL: 750 ppm (1810 mg/m3)	
Monitoring procedures:	-	Compur - KITA-221 SA (549 459)	·
	-	OSHA PV2010 (n-Butane) - 1993	
BMGV:		Other information	:
© Chemical Name	Propane		
WEL-TWA: 1000 ppm (ACGIH)		WEL-STEL:	
Monitoring procedures:	-	Compur - KITA-125 SA (549 954)	·
	-	OSHA PV2077 (Propane) - 1990	
BMGV:		Other information	:
© Chemical Name	Isobutane		
WEL-TWA: 1000 ppm (EX) (AC	GIH)	WEL-STEL:	
Monitoring procedures:	-	Compur - KITA-113 SB(C) (549 368)	
BMGV:		Other information	1:

Distillates (petroleum), hydrotreated heavy paraffinic



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Area of application	Exposure route / Environmental compartment	Effect on health	Descripto r	Value	Unit	Note
	Environment - oral (animal feed)		PNEC	9,33	mg/kg feed	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,2	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	2,73	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,97	mg/kg	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5,6	mg/m3	

- United Kingdom | WEL-TWA = Workplace Exposure Limit Long-term exposure limit 8-hour TWA (= time weighted average) reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
- (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU: (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
- (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:
- (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU).
- BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).
- (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |
- | Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU or 2024/869/EU:
- (13) = The substance can cause sensitisation of the skin and of the respiratory tract (98/24/EC, 2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE), (15) = Substantial contribution to the total body burden via dermal exposure possible.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN ISO 374).

Recommended

Protective nitrile gloves (EN ISO 374).



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Minimum layer thickness in mm:

0.4

Permeation time (penetration time) in minutes:

>=480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Gas mask filter ABEK-P2 (EN 14387), code colour brown, grey, yellow, green, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Aerosol. Active substance: liquid. 20°C

Colour: Black Odour:

Melting point/freezing point: There is no information available on this parameter.

Boiling point or initial boiling point and boiling range: There is no information available on this parameter.

Flammability: Does not apply to aerosols.

Lower explosion limit: There is no information available on this parameter. Upper explosion limit: There is no information available on this parameter.

Flash point: -60 °C (The flash-point of the mixture was not tested, but complies with the ingredient with the lowest value.)

Auto-ignition temperature: Does not apply to aerosols.

Decomposition temperature: There is no information available on this parameter. pH:

Mixture is non-soluble (in water).

Kinematic viscosity: Does not apply to aerosols.

There is no information available on this parameter. Solubility:

Partition coefficient n-octanol/water (log value): Does not apply to mixtures. Vapour pressure:

4000 hPa (20°C) 6500 hPa (50°C)

0,86 g/cm3 (Active substance) Does not apply to aerosols. Does not apply to aerosols.

9.2 Other information

Relative vapour density:

Particle characteristics:

Density and/or relative density:

Vapour pressure:

No information available at present.

SECTION 10: Stability and reactivity



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10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

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

Possibly more information on health effects, see Section 2.1 (classification).

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	-					n.d.a.
Acute toxicity, by dermal						n.d.a.
route:						
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye						n.d.a.
damage/irritation:						
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-						
RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Butane						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation	
					Test)	
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative
					Mammalian	
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:				Human being	OECD 473 (In Vitro	Negative
					Mammalian	
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:				Rat	OECD 474	Negative
					(Mammalian	
					Erythrocyte	
					Micronucleus Test)	



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Specific target organ toxicity -	NOAEC	21,394	mg/l	Rat	OECD 422	
repeated exposure (STOT-					(Combined Repeated	
RE), inhalat.:					Dose Tox. Study with	
<i>'</i>					the	
					Reproduction/Develop	
					m. Tox. Screening	
					Test)	
Aspiration hazard:					. 661)	No
Symptoms:						ataxia,
Symptome:						breathing
						difficulties,
						drowsiness,
						unconsciousnes
						s, frostbite,
						disturbed heart
						rhythm,
						headaches,
						cramps,
						intoxication,
						dizziness,
						nausea and
						vomiting.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Acute toxicity, by inhalation:	LC50	260000	ppmV/4h	Rat		Gasses, Male, Analogous conclusion
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEC	21,641	mg/l		OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Develop m. Tox. Screening Test)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	7,214	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Develop m. Tox. Screening Test)	
Specific target organ toxicity - repeated exposure (STOT- RE), inhalat.:	LOAEL	21,641	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Develop m. Tox. Screening Test)	
Aspiration hazard:					,	No



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Symptoms:			breathing difficulties, unconsciousnes s, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and
			vomiting.

Isobutane						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Acute toxicity, by inhalation:	LC50	260000	ppmV/4h	Rat		Gasses, Male
Serious eye damage/irritation:				Rabbit		Not irritant
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Specific target organ toxicity - repeated exposure (STOT- RE), inhalat.:	NOAEL	21,394	mg/l	Rat	OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Develop m. Tox. Screening Test)	
Aspiration hazard:					,	No
Symptoms:						unconsciousnes, frostbite, headaches, cramps, dizziness, nausea and vomiting.

11.2. Information on other hazards

FLUID FILM AS-R black						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting						Does not apply
properties:						to mixtures.
Other information:						No other
						relevant
						information
						available on
						adverse effects
						on health.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

FLUID FILM AS-R bI	ack						
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes



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12.1. Toxicity to fish:				n.d.a.
12.1. Toxicity to				n.d.a.
daphnia:				
12.1. Toxicity to algae:				n.d.a.
12.2. Persistence and				n.d.a.
degradability:				
12.3. Bioaccumulative				n.d.a.
potential:				
12.4. Mobility in soil:				n.d.a.
12.5. Results of PBT				n.d.a.
and vPvB assessment				
12.6. Endocrine				Does not apply
disrupting properties:				to mixtures.
12.7. Other adverse				No information
effects:				available on
				other adverse
				effects on the
				environment.
Other information:				DOC-
				elimination
				degree(complex
				ing organic
				substance)>=
				80%/28d: n.a.
Other information:	AOX	%		According to
				the recipe,
				contains no
				AOX.

Butane							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	24,11	mg/l		QSAR	
12.1. Toxicity to daphnia:	LC50	48h	14,22	mg/l		QSAR	
12.3. Bioaccumulative potential:	Log Pow		2,89				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.4. Mobility in soil:							Not to be expected
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Propane							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.3. Bioaccumulative potential:	Log Pow		2,28				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Isobutane							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	27,98	mg/l			



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12.1. Toxicity to algae:	EC50	96h	7,71	mg/l	
12.2. Persistence and				_	Readily
degradability:					biodegradable
12.3. Bioaccumulative					A notable
potential:					biological
					accumulation
					potential is not
					to be expected
					(LogPow 1-3).
12.5. Results of PBT					No PBT
and vPvB assessment					substance, No
					vPvB substance

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.

Recommendation:

Do not perforate, cut up or weld uncleaned container.

Recycling

15 01 04 metallic packaging

SECTION 14: Transport information

General statements

Transport by road/by rail (ADR/RID)

14.1. UN number or ID number: 1950

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es): 2.1

14.4. Packing group:

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Classification code:

5F
LQ:
1 L
Transport category:
2

Transport by sea (IMDG-code)

14.1. UN number or ID number:

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es):

2.1

14.4. Packing group:

14.5. Environmental hazards:Not applicableMarine Pollutant:Not applicableEmS:F-D, S-U

Transport by air (IATA)







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14.1. UN number or ID number: 1950

14.2. UN proper shipping name:

UN 1950 Aerosols, flammable

14.3. Transport hazard class(es):

14.4. Packing group:

14.5. Environmental hazards: Not applicable



Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be

considered according to storage, handling etc.):

to holder ou decorating to eterage, manaling eter.							
Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of				
		dangerous substances as	dangerous substances as				
		referred to in Article 3(10) for	referred to in Article 3(10) for				
		the application of - Lower-tier	the application of - Upper-tier				
		requirements	requirements				
P3a	11.1	150 (netto)	500 (netto)				

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 2 - This product contains the substances listed below:

Entry Nr	Dangerous substances	Notes to Annex I	Qualifying quantity (tonnes) for the application of - Lower-	Qualifying quantity (tonnes) for the application of - Upper-
18	Liquefied flammable	19	tier requirements 50	tier requirements 200
	gases, Category 1 or 2 (including LPG) and			
	natural gas			

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

~ 70 %

Observe incident regulations.

National requirements/regulations on safety and health protection must be applied when using work equipment.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information



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Revised sections:

n.a.

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on the form or physical state.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents.

Aerosol — Aerosols

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BSEF The International Bromine Council

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EbCx, EyCx, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass (algae, plants)

EC European Community

ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances



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ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ErCx, EµCx, ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

Koc Adsorption coefficient of organic carbon in the soil

Kow octanol-water partition coefficient

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLIDInternational Uniform Chemical Information Database

IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Log Koc Logarithm of adsorption coefficient of organic carbon in the soil

Log Kow, Log Pow Logarithm of octanol-water partition coefficient

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

mg/kg bw mg/kg body weight

mg/kg bw/d, mg/kg bw/day mg/kg body weight/day

mg/kg dw mg/kg dry weight mg/kg wwt mg/kg wet weight

n.a. not applicable n.av. not available n.c. not checked n.d.a. no data available

NIOSHNational Institute for Occupational Safety and Health (USA)

NLP No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level

OECD Organisation for Economic Co-operation and Development

org. organic

OSHA Occupational Safety and Health Administration (USA)

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million PVC Polyvinylchloride

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.



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