

HF Leitsilberlack

Version number: SDSCH 1.0

Date of compilation: 12.02.2021

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

1.1 Product identifier

Trade name	HF Leitsilberlack
Other names or synonyms	<i>HF Leitsilberlack</i>
Registration number (REACH)	not relevant (mixture)
- Unique formula identifier	S00U-USXK-VQAW-RHAM

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

Relevant identified uses	Lacquer
Uses advised against	For professional users only.

1.3 Details of the supplier of the safety data sheet

C.HAFNER GmbH + Co. KG
Maybachstr. 4
71299 Wimsheim
Germany

Telephone: +49-704490333-0
Telefax: +49-70449033-40
e-Mail: Website: www.c-hafner.de

Additional information

Supplier of the product					
Country	Name	Postal code/city	Telephone	Telefax	Website
Germany	C.HAFNER GmbH + Co. KG	71299 Wimsheim	+49-7044-90333-0	+49-7044-9033-40	www.c-hafner.de

e-mail (competent person)	michael.huber@c-hafner.de (Dr. Michael Huber)
National contact	Dr .Michael Huber Telephone: +49-7231-424021-406 e-mail: Michael.huber@c-hafner.de

1.4 Emergency telephone number

Emergency information service	This number is only for medical emergencies
Opening hours	24h-Notrufnummer

Poison centre						
Country	Name	Postal code/city	Telephone	Telefax	Website	Opening hours
Germany	Gemeinsames Giftinformationszentrum Erfurt	99089 Erfurt	+49 (0)361-730 730	0361-73073-17	ggiz-erfurt.de	Mon - Fri 00:00 - 00:00

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1.5 Additional relevant and available information

1.6 Remarks there is no additional information

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
2.6	flammable liquid	3	Flam. Liq. 3	H226
3.1I	acute toxicity (inhal.)	4	Acute Tox. 4	H332
3.8D	specific target organ toxicity - single exposure (narcotic ef-fects, drowsiness)	3	STOT SE 3	H336
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

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

- Signal word warning

- Pictograms



- Hazard statements

- H226 Flammable liquid and vapour.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H410 Very toxic to aquatic life with long lasting effects.

- Precautionary statements

- P102 Keep out of reach of children.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P312 Call a POISON CENTRE/doctor if you feel unwell.
- P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
- P391 Collect spillage.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling Methoxyisopropanol, Ethyl acetate

2.3 Other hazards

There is no additional information.

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SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Hazardous ingredients acc. to GHS				
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Methoxyisopropanol	CAS No 107-98-2 EC No 203-539-1 REACH Reg. No 01-2119457435-35- xxxx	25 – < 50	Flam. Liq. 3 / H226 STOT SE 3 / H336	 
Silver (< 1 mm)	CAS No 7440-22-4 EC No 231-131-3 REACH Reg. No 01-2119555669-21- 0024	25 – < 50	Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
Ethyl acetate	CAS No 141-78-6 EC No 205-500-4 REACH Reg. No 01-2119475103-46- xxxx	5 – < 10	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	 
Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
Silver (< 1 mm)	-	M-factor (chronic) = 10.0	-	

For full text of abbreviations: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). No special measures are necessary.

. If medical advice is needed, have product container or label at hand. If eye irritation persists: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention.

Following inhalation

Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

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Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Narcotic effects.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

In case of fire: Use carbon dioxide, powder extinguisher, water spray or alcohol resistant foam to extinguish

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂). In case of fire: Use carbon dioxide, powder extinguisher, water spray or alcohol resistant foam to extinguish.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Special protective equipment for firefighters

Protective clothing against liquid and gaseous chemicals, including liquid aerosols and solid particles, Wear self-contained breathing apparatus, No special measures are necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Follow emergency procedures such as the need to evacuate the danger area or to consult an expert.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

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Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal.

6.4 Reference to other sections

Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Recommendations****- Measures to prevent fire as well as aerosol and dust generation**

Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities**Managing of associated risks****- Explosive atmospheres**

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

Consideration of other advice**- Ventilation requirements**

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Source
DE	1-methoxy-2-propanol	107-98-2	Y	AGW	100	370	200	740			TRGS 900
DE	1-methoxy-2-propanol	107-98-2		MAK	100	370	200	740			DFG
DE	ethyl acetate	141-78-6		MAK	200	750	400	1,500			DFG
DE	ethyl acetate	141-78-6	Y	AGW	200	730	400	1,460			TRGS 900
DE	silver	7440-22-4	i	AGW		0.1		0.8			TRGS 900
EU	1-methoxy-2-propanol	107-98-2		IOEL V	100	375	150	568			2000/39/EC
EU	ethyl acetate	141-78-6		IOEL V	200	734	400	1,468			2017/164/EU
EU	silver	7440-22-4		IOEL V		0.1					2000/39/EC

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
i	inhalable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours
	time-weighted average (unless otherwise specified)
Y	a risk of developmental toxicity does not need to be expected if the occupational exposure limit value and the biological limit value (BGW) are adhered to

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Silver (< 1 mm)	7440-22-4	DNEL	0.1 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Methoxyisopropanol	107-98-2	DNEL	369 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Methoxyisopropanol	107-98-2	DNEL	553.5 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
Methoxyisopropanol	107-98-2	DNEL	553.5 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
Methoxyisopropanol	107-98-2	DNEL	183 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

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Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Ethyl acetate	141-78-6	DNEL	734 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Ethyl acetate	141-78-6	DNEL	1,468 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
Ethyl acetate	141-78-6	DNEL	734 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
Ethyl acetate	141-78-6	DNEL	1,468 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
Ethyl acetate	141-78-6	DNEL	63 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

8.1.4.5 Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Silver (< 1 mm)	7440-22-4	PNEC	0.04 µg/l	aquatic organisms	freshwater	short-term (single instance)
Silver (< 1 mm)	7440-22-4	PNEC	0.86 µg/l	aquatic organisms	marine water	short-term (single instance)
Silver (< 1 mm)	7440-22-4	PNEC	0.025 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Silver (< 1 mm)	7440-22-4	PNEC	438.1 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Silver (< 1 mm)	7440-22-4	PNEC	438.1 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Silver (< 1 mm)	7440-22-4	PNEC	1.41 mg/kg	terrestrial organisms	soil	short-term (single instance)
Methoxyisopropanol	107-98-2	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
Methoxyisopropanol	107-98-2	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
Methoxyisopropanol	107-98-2	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Methoxyisopropanol	107-98-2	PNEC	52.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Methoxyisopropanol	107-98-2	PNEC	5.2 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Methoxyisopropanol	107-98-2	PNEC	4.59 mg/kg	terrestrial organisms	soil	short-term (single instance)
Ethyl acetate	141-78-6	PNEC	0.24 mg/l	aquatic organisms	freshwater	short-term (single instance)
Ethyl acetate	141-78-6	PNEC	0.024 mg/l	aquatic organisms	marine water	short-term (single instance)
Ethyl acetate	141-78-6	PNEC	650 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Ethyl acetate	141-78-6	PNEC	1.15 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)

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Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Ethyl acetate	141-78-6	PNEC	0.115 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Ethyl acetate	141-78-6	PNEC	0.148 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Use protective eyewear to guard against splash of liquids. Wear suitable gloves and eye/face protection.

Skin protection

Preventive skin protection (barrier creams/ointments) is recommended.

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374 and regulation (EU) Nr. 2016/425. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Material of gloves: nitrile rubber; NBR.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

[In case of inadequate ventilation] wear respiratory protection. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	silver grey
Odour	characteristic
Melting point/freezing point	-96 °C at 101,325 Pa
Boiling point or initial boiling point and boiling range	120.3 °C at 101.3 kPa
Flammability	not relevant not combustible but contains combustible materials (fluid)
Lower and upper explosion limit	2.3 vol% - 20 vol%

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Flash point	< 32°C
Auto-ignition temperature	270 °C < 300°C (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined

Solubility(ies)

Water solubility	partly miscible
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Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapour pressure	13 hPa at 293 K
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Density and/or relative density

Density	5.535 g/cm ³ at 20 °C
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Particle characteristics	no data available
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9.2 Other information

Of no significance.

Information with regard to physical hazard classes	there is no additional information
Other safety characteristics	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

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10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)**Acute toxicity**

Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful if swallowed or in contact with skin.

- Acute toxicity estimate (ATE)

Inhalation: vapour 14 ^mg/l/4h

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity (STOT)**Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Acc. to 1272/2008/EC: Very toxic to aquatic life with long lasting effects.
Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK 1, slightly hazardous to water (Germany)

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Silver (< 1 mm)	7440-22-4	LC50	1.2 µg/l	fish	96 h
Silver (< 1 mm)	7440-22-4	ErC50	2.52 µg/l	algae	72 h
Silver (< 1 mm)	7440-22-4	EC50	0.82 µg/l	algae	72 h
Methoxyisopropanol	107-98-2	LC50	<10,000 mg/l	fish	96 h
Ethyl acetate	141-78-6	LC50	230 mg/l	fish	96 h
Ethyl acetate	141-78-6	EC50	220 mg/l	fish	96 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Silver (< 1 mm)	7440-22-4	EC50	0.8 µg/l	aquatic invertebrates	7 d
Methoxyisopropanol	107-98-2	ErC50	>1,000 mg/l	algae	7 d

12.2 Persistence and degradability

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Methoxyisopropanol	107-98-2	DOC removal	96 %	28 d		ECHA
Ethyl acetate	141-78-6	oxygen depletion	62 %	5 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Silver (< 1 mm)	7440-22-4	70		
Methoxyisopropanol	107-98-2		<1 (pH value: 6.8, 20 °C)	
Ethyl acetate	141-78-6	30	0.68 (pH value: 7, 25 °C)	

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12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

Properties of waste which render it hazardous

- HP 3 flammable
- HP 14 ecotoxic

- Product

11 01 06* acids not otherwise specified

- Product residues

11 01 06* acids not otherwise specified

- Packagings

15 01 10* packaging containing residues of or contaminated by hazardous substances

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN	UN 1263
IMDG-Code	UN 1263
ICAO-TI	UN 1263

14.2 UN proper shipping name

ADR/RID/ADN	PAINT
IMDG-Code	PAINT
ICAO-TI	Paint

14.3 Transport hazard class(es)

ADR/RID/ADN	3
IMDG-Code	3

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ICAO-TI	3
14.4 Packing group	
ADR/RID/ADN	I
IMDG-Code	I
ICAO-TI	I
14.5 Environmental hazards	hazardous to the aquatic environment
14.6 Special precautions for user	
Provisions for dangerous goods (ADR) should be complied within the premises.	
14.7 Maritime transport in bulk according to IMO instruments	
The cargo is not intended to be carried in bulk.	

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information

Classification code	F1
Danger label(s)	3, fish and tree
	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	163, 367, 650
Excepted quantities (EQ)	E3
Limited quantities (LQ)	500 ml
Transport category (TC)	1
Tunnel restriction code (TRC)	D/E
Hazard identification No	33

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (Silver (< 1 mm))
Danger label(s)	3, fish and tree
	
Special provisions (SP)	163, 367
Excepted quantities (EQ)	E3
Limited quantities (LQ)	500 mL
EmS	F-E, <u>S-E</u>
Stowage category	E

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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards YES (hazardous to the aquatic environment)

Danger label(s) 3



Special provisions (SP) A3, A72, A192

Excepted quantities (EQ) E3

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

Dangerous substances with restrictions (REACH, Annex XVII)				
Name of substance	Name acc. to inventory	CAS No	Restriction	No
HF Leitsilberlack	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		R3	3

Legend

- R3
- Shall not be used in:
 - ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
 - tricks and jokes,
 - games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
 - Articles not complying with paragraph 1 shall not be placed on the market.
 - Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:
 - can be used as fuel in decorative oil lamps for supply to the general public, and,
 - present an aspiration hazard and are labelled with R65 or H304,
 - Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
 - Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
 - lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
 - grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
 - lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
 - No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
 - Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Water Framework Directive (WFD)

none of the ingredients are listed

National regulations (Germany)

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Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK 1 slightly hazardous to water
(water hazard class)

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 3 (flammable liquids)

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
2017/164/EU	Commission Directive establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	European Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
AGW	Workplace exposure limit
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
COD	Chemical oxygen demand
DFG	Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances

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Abbr.	Descriptions of used abbreviations
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LGK	Lagerklasse (storage class according to TRGS 510, Germany)
log KOW	n-Octanol/water
M-factor	Means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

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Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.