

according to UK REACH Regulation

## Ferrinitrat 10 %

Revision date: 18.08.2021 Product code: 18925.xxxxx Page 1 of 12

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

## 1.1. Product identifier

Ferrinitrat 10 %

#### Further trade names

This MSDS covers the following products in all container sizes:

- REF 18925.xxxxx Ferrinitrat 10 %

UFI: NTDP-T193-F00Y-GYD1

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

## Use of the substance/mixture

Metal surface etching. The product is intended for research, analysis and scientific education.

#### Uses advised against

Any non-intended use.

# 1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name: MORPHISTO GmbH
Street: Schumannstr. 142/144
Place: D-63069 Offenbach

Telephone: +49 (0) 69 / 400 3019-60 Telefax: +49 (0) 69 / 400 3019-64

e-mail: info@morphisto.de
Contact person: Morphisto GmbH
e-mail: info@morphisto.de
Internet: http://www.morphisto.de

Supplier

Company name: MORPHISTO GmbH
Street: Schumannstr. 142/144
Place: D-63069 Offenbach

Telephone: +49 (0) 69 / 400 3019-60 Telefax: +49 (0) 69 / 400 3019-64

e-mail: info@morphisto.de
Contact person: Morphisto GmbH
e-mail: info@morphisto.de
Internet: http://www.morphisto.de

1.4. Emergency telephone Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

number:

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

## **GB CLP Regulation**

Hazard categories:

Flammable liquid: Flam. Liq. 2 Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Highly flammable liquid and vapour.

Causes skin irritation.
Causes serious eye irritation.

# 2.2. Label elements

## **GB CLP Regulation**

Signal word: Warning



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## Pictograms:





### **Hazard statements**

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation. H319 Causes serious eye irritation.

## **Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P264 Wash hands thoroughly after handling.

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

protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

No information available.

## **SECTION 3: Composition/information on ingredients**

# 3.2. Mixtures

## **Hazardous components**

CAS No	Chemical name	Chemical name		Quantity	
	EC No	Index No	REACH No		
	GHS Classification	<u> </u>			
64-17-5	ethanol, ethyl alcohol		40 - < 45 %		
	200-578-6	603-002-00-5	01-2119457610-43		
	Flam. Liq. 2, Eye Irrit. 2; H225 H31	i H319			
7782-61-8	Iron trinitrate nonahydrate			5 - < 10 %	
	233-899-5		01-2119978293-27		
	Ox. Sol. 3, Skin Irrit. 2, Eye Irrit. 2; H272 H315 H319				

Full text of H and EUH statements: see section 16.

## Specific Conc. Limits, M-factors and ATE

CAS No	EC No	nemical name	
	Specific Conc. I	Specific Conc. Limits, M-factors and ATE	
64-17-5	200-578-6	ethanol, ethyl alcohol	40 - < 45 %
	inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = >5000 mg/kg		
7782-61-8	233-899-5	Iron trinitrate nonahydrate	5 - < 10 %
	oral: LD50 = 3250 mg/kg		

## **SECTION 4: First aid measures**

## 4.1. Description of first aid measures





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#### **General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

Provide fresh air. Remove person to fresh air and keep comfortable for breathing. If unconscious place in recovery position and seek medical advice. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

## After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Seek medical advice.

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

Irritation. Causes burns. Gastrointestinal complaints. Liver and kidney damage. Functional disorders of the CNS and cardiovascular system. Life-threatening poisoning possible. Methaemoglobin formation.

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

Treat symptomatically.

# **SECTION 5: Firefighting measures**

## 5.1. Extinguishing media

## Suitable extinguishing media

Suitable: Carbon dioxide (CO2), alcohol-resistant foam, dry extinguishing agent, water spray. Adjust extinguishing measures to the environment.

## 5.2. Special hazards arising from the substance or mixture

The pure substance is oxidizing. Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx). metal oxide smoke.

## 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

## **Additional information**

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

### General measures

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove all sources of ignition. Ventilate affected area. Special danger of slipping by leaking/spilling product.

#### For non-emergency personnel

Ventilate affected area. Remove all sources of ignition. Remove product from area of fire. Consult an expert.

## For emergency responders

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



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## 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

#### For containment

Seal off the sewer. Collect, embank and pump out. Observe possible material restrictions (section 10). Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

## For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation. Ventilate affected area.

## 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

#### Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations. In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Do not breathe gas/fumes/vapour/spray. Process within closed systems. Use extractor hood (laboratory). Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8). Always close containers tightly after the removal of product.

### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Vapours can form explosive mixtures with air. Flammable vapours can accumulate in head space of closed systems.

#### Advice on general occupational hygiene

Ensure cleanliness and dryness in the workplace. Remove contaminated, saturated clothing immediately. Take off contaminated clothing and wash it before reuse. Used working clothes should not be worn outside the work area. Street clothing should be stored separately from work clothing. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

## 7.2. Conditions for safe storage, including any incompatibilities

## Requirements for storage rooms and vessels

Ensure adequate ventilation of the storage area. Provide adequate ventilation as well as local exhaustion at critical locations. Keep container tightly closed. Keep container tightly closed in a cool, well-ventilated place.

## Hints on joint storage

Do not store together with: food and feed. pharmaceuticals. Infectious substances. Radioactive substances. Explosive substances. Oxidizing substances. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Pyrophoric solids. Substances which in contact with water form flammable gases. Ammonium nitrate and preparations containing ammonium nitrate.

## Further information on storage conditions

Keep away from heat. Protect against direct sunlight.

# 7.3. Specific end use(s)

Metal surface etching. The product is intended for research, analysis and scientific education.

### **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters



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# **Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
-	Iron salts (as Fe)	-	1		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

## **DNEL/DMEL values**

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
64-17-5	ethanol, ethyl alcohol	ethanol, ethyl alcohol			
Worker DNEL	, acute	inhalation	local	1900 mg/m³	
Worker DNEL	., long-term	dermal	systemic	343 mg/kg bw/day	
Worker DNEL, long-term		inhalation	systemic	950 mg/m³	
Consumer DNEL, acute		inhalation	local	950 mg/m³	
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day	
Consumer DNEL, long-term		inhalation	systemic	114 mg/m³	
Consumer DNEL, long-term		oral	systemic	87 mg/kg bw/day	

#### **PNEC values**

CAS No	Substance		
Environmenta	Environmental compartment Value		
64-17-5	ethanol, ethyl alcohol		
Freshwater		0,96 mg/l	
Freshwater (in	termittent releases)	2,75 mg/l	
Marine water 0,79 mg/l		0,79 mg/l	
Marine water (intermittent releases) 2,75 mg/l		2,75 mg/l	
Freshwater sediment 3,6 mg/kg		3,6 mg/kg	
Marine sediment 2,9 mg/kg		2,9 mg/kg	
Secondary poisoning 0,72 mg/kg		0,72 mg/kg	
Micro-organisms in sewage treatment plants (STP) 580 mg/l		580 mg/l	
Soil 0,63 mg/kg		0,63 mg/kg	

# 8.2. Exposure controls







## Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Provide adequate ventilation as well as local exhaustion at critical locations. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Fire extinguishing equipment shall be provided. Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

## Individual protection measures, such as personal protective equipment

# Eye/face protection

Suitable eye protection: Eye glasses with side protection.



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## Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Recommended material: Breakthrough time (maximum wearing time): >480 min.

Butyl rubber. 0,5mm.

FKM (fluororubber). 0,4mm.

continuous:

CR (polychloroprenes, Chloroprene rubber). 0,5mm.

## Skin protection

Use of protective clothing: Chemical protection clothing.

## Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Suitable respiratory protective equipment: gas filtering equipment (EN 141). Type: Identification color: brown The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

#### Thermal hazards

Flame-retardant protective clothing, Wear anti-static footwear and clothing

## **Environmental exposure controls**

Do not allow to enter into surface water or drains.

# **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state: Liquid

Colour: yellowish - green

Odour: alcoholic

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

78 °C

boiling range:

Flash point: Ethanol: 12 °C

**Flammability** 

Solid/liquid: not applicable
Gas: not applicable

**Explosive properties** 

Oxidising.

Lower explosion limits: Ethanol: 3,5 vol. %
Upper explosion limits: Ethanol: 15 vol. %
Auto-ignition temperature: Ethanol: 400 °C
Decomposition temperature: not determined

Oxidizing properties

Oxidising. Vapours can form explosive mixtures with air.

pH-Value (at 20 °C): <6
Water solubility: easily soluble



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Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined
Vapour pressure: 58 hPa

(at 20 °C)

Vapour pressure: 293 hPa

(at 50 °C)

Density (at 20 °C): 0,92 g/cm³
Relative vapour density: not determined

## 9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: Sustaining combustion

Other safety characteristics

Solvent content: 94,71%
Solid content: 5,29 %
Evaporation rate: not determined

**Further Information** 

## **SECTION 10: Stability and reactivity**

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions. Heating may cause a fire or explosion. Vapours can form explosive mixtures with air.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

Chlorine, potassium, sodium, strong oxidising agents, nitric acid, calcium hypochlorite, halogen oxides, di-sulphur difluoride, acetic anhydride + salts + acids, isocyanates, potassium dioxide, perchlorates, potassium permanganate/sulphuric acid, sodium hypochlorite, sodium peroxide, nitrosyl perchlorate, peracids, perchloronitrile, mercury nitrate, oxygen (liquid), sulphuric acid + hydrogen peroxide, silver/nitric acid, silver nitrate, silver nitrate/ammonia, silver oxide/ammonia, nitrogen dioxide,hydrogen peroxide, conc. Alkali/alkaline earth metals, fluorine, reducing agents, acids, acetyl bromide, acetyl chloride, barium perchlorate, bromine trifluoride, cesium oxide, chromium trioxide, chromyl chloride, ethylene oxide, iodine heptafluoride, potassium tert-butoxide, butoxide, lithium hydride, phosphorus trioxide, platinum black, nitric acid/potassium permanganate, acid anhydrides, uranium hexafluoride, zirconium (IV) chloride, zirconium (IV) iodide. dimethylsulphoxide (DMSO).

## 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

## 10.5. Incompatible materials

Reducing agents, strong. Oxidising substances. Combustible substance. phosphorus. Metal powder. metals. Alkali metals. Alkaline earth metals.

# 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO2). Nitrogen oxides (NOx). metal oxide smoke.

# **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### **Acute toxicity**

Based on available data, the classification criteria are not met.



CAS No

64-17-5

7782-61-8

# **Safety Data Sheet**

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Species

Rat

Rat

Rat

Source

RTECS

ECHA Dossier

ECHA Dossier

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>5000

124,7

3250

Dose

LD50

mg/kg

LC50

LD50

mg/kg

mg/l

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		l
Method		İ
		l

# Irritation and corrosivity

oral

oral

Causes skin irritation.

Causes serious eye irritation.

Chemical name Exposure route

ethanol, ethyl alcohol

inhalation (4 h) vapour

Iron trinitrate nonahydrate

## Sensitising effects

Based on available data, the classification criteria are not met.

## Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

## STOT-single exposure

Based on available data, the classification criteria are not met.

## STOT-repeated exposure

Based on available data, the classification criteria are not met.

# **Aspiration hazard**

Based on available data, the classification criteria are not met.

## **Further information**

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

# **SECTION 12: Ecological information**

# **12.1. Toxicity**

The product is not: Ecotoxic.

CAS No	Chemical name	Chemical name					
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
64-17-5	ethanol, ethyl alcohol	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50 mg/l	14200	96 h	Pimephales promelas	ECHA Dossier	
	Acute algae toxicity	ErC50	275 mg/l	72 h	Chlorella vulgaris	ECHA Dossier	
	Acute crustacea toxicity	EC50 mg/l	5012	48 h	Ceriodaphnia dubia	ECHA Dossier	
	Crustacea toxicity	NOEC	9,6 mg/l	9 d	Daphnia magna	ECHA Dossier	

## 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			•
64-17-5	ethanol, ethyl alcohol			
	other guideline	84%	20	ECHA Dossier
	Biodegradable.		•	

## 12.3. Bioaccumulative potential



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The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol, ethyl alcohol	-0,31

## 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

#### 12.7. Other adverse effects

slightly hazardous to water (WGK 1).

## **Further information**

Avoid release to the environment. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

## **Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

## Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

# **SECTION 14: Transport information**

# Land transport (ADR/RID)

14.1. UN number or ID number: UN 1170

14.2. UN proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Classification code: F1
Special Provisions: 144 601
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 30
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1170

14.2. UN proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



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Classification code: F1
Special Provisions: 144 601
Limited quantity: 5 L
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1170

14.2. UN proper shipping name: ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Special Provisions: 144, 223
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1170

14.2. UN proper shipping name: ETHYL ALCOHOL SOLUTION

14.3. Transport hazard class(es):314.4. Packing group:IIIHazard label:3



Special Provisions: A3 A58 A180

Limited quantity Passenger: 10 L
Passenger LQ: Y344
Excepted quantity: E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Combustible liquid.

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

**EU** regulatory information





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Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

2010/75/EU (VOC): 41,77 % 2004/42/EC (VOC): 41,77 %

Information according to 2012/18/EU

(SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or

nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

## 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### **SECTION 16: Other information**

### Changes

REv. 1,0; 17.08.2021; Initial release.

#### Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

**UN: United Nations** 

CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%

LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules MFAG: Medical First Aid Guide

IATA: International Air Transport Association ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds



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SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

## Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	On basis of test data
Eye Irrit. 2; H319	Calculation method

## Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H272 May intensify fire; oxidiser.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

#### **Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations. The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)