

## Safety Data Sheet

according to UK REACH Regulation

### Acriflavine Solution, aqueous

Revision date: 01.12.2023

Product code: 12790.xxxxx

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

##### 1.1. Product identifier

Acriflavine Solution, aqueous

UFI: F3E4-N1RN-D00V-8MC7

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

###### Use of the substance/mixture

laboratory reagent. Intended for scientific research and development.

###### Uses advised against

Any non-intended use.

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

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: gefahrstoffmanagement@morphisto.de  
Internet: http://www.morphisto.de

##### 1.4. Emergency telephone number:

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

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### GB CLP Regulation

Skin Corr. 1; H314  
Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

The mixture was classified as corrosive precautionary due to an extreme pH-value.

##### 2.2. Label elements

###### GB CLP Regulation

###### Hazard components for labelling

Acetic acid...%

Signal word: Danger

Pictograms:



###### Hazard statements

H314 Causes severe skin burns and eye damage.

###### Precautionary statements

P260 Do not breathe mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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P310 present and easy to do. Continue rinsing.  
 Immediately call a POISON CENTER/doctor.

**2.3. Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
64-19-7	Acetic acid%			1 - < 5 %
	200-580-7	607-002-00-6	01-2119475328-30	
	Flam. Liq. 3, Skin Corr. 1A; H226 H314			

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

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

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64-19-7	200-580-7	Acetic acid%	1 - < 5 %
	inhalation: LC50 = >40 mg/l (vapours); oral: LD50 = 3530 mg/kg Skin Corr. 1A; H314: >= 90 - 100 Skin Corr. 1B; H314: >= 25 - < 90 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25		

**Further Information**

This product contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**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). May cause allergic reactions. In case of an allergic reaction: Remove casualty to fresh air and keep warm and at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.

**After inhalation**

Medical treatment necessary. Provide fresh air. In case of respiratory tract irritation, consult a physician. If breathing is irregular or stopped, administer artificial respiration. 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.

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#### **After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### **After ingestion**

Observe risk of aspiration if vomiting occurs. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk. Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

#### **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**

Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Atomized water.

##### **Unsuitable extinguishing media**

High power water jet.

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

Non-flammable. In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

#### **5.3. Advice for firefighters**

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

#### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

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

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General advice**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided.

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

##### **For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

##### **Other information**

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **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**

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**Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. No special measures are necessary. The usual precautions for handling chemicals should be considered. Wear suitable protective clothing.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. 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. Take off contaminated clothing and wash it before reuse. Always close containers tightly after the removal of product.

**Further information on handling**

Always close containers tightly after the removal of product. Personal protective equipment must be determined according to the quantity and concentration of hazardous substances at the workplace. Wear solvent-resistant protective clothing. Wash hands and face before breaks and after work and take a shower if necessary. Draw up and observe skin protection programme.

**7.2. Conditions for safe storage, including any incompatibilities**
**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaust at critical locations.

**Hints on joint storage**

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff Ammonium nitrate.

**Further information on storage conditions**

Keep the packing dry and well sealed to prevent contamination and absorption of humidity.

Recommended storage temperature: 15 - 25°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

**7.3. Specific end use(s)**

See section 1.

**SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
64-19-7	Acetic acid	10	25		TWA (8 h)	WEL
		20	50		STEL (15 min)	WEL

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
64-19-7	Acetic acid%			
	Worker DNEL, long-term	inhalation	local	25 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	local	25 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	25 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	25 mg/m <sup>3</sup>

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**PNEC values**

CAS No	Substance	
Environmental compartment		Value
64-19-7	Acetic acid%	
Freshwater		3,058 mg/l
Freshwater (intermittent releases)		30,58 mg/l
Marine water		0,306 mg/l
Freshwater sediment		11,36 mg/kg
Marine sediment		1,136 mg/kg
Micro-organisms in sewage treatment plants (STP)		85 mg/l
Soil		0,47 mg/kg

**8.2. Exposure controls**

**Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation. 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: goggles. Wear safety glasses; chemical goggles (if splashing is possible). EN 166

**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. In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Use of protective clothing. Suitable protective clothing: Lab apron.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

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**Respiratory protection**

In case of inadequate ventilation wear respiratory protection. With correct and proper use, and under normal conditions, breathing protection is not required. Suitable respiratory protective equipment: - Particle filter device (EN 143)- P1.

**Environmental exposure controls**

No special precautionary measures are necessary.

**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

Physical state:	liquid	
Colour:	yellow -brown	
Odour:	slightly ofAcetic acid	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		100 °C
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		not determined
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value (at 20 °C):		1,5 - 1,9
Viscosity / kinematic:		not determined
Water solubility:		miscible.
Solubility in other solvents		not determined
Partition coefficient n-octanol/water:		not determined
Vapour pressure:		23 hPa
Density (at 20 °C):		1,00 g/cm³
Relative vapour density:		not determined
Particle characteristics:		not applicable

**9.2. Other information**
**Information with regard to physical hazard classes**
**Explosive properties**

The product is not: Explosive.

**Sustaining combustion:**

Not sustaining combustion

**Self-ignition temperature**

Gas:

not determined

**Oxidizing properties**

none

**Other safety characteristics**

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Viscosity / dynamic:	not determined
Flow time:	not determined

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**SECTION 10: Stability and reactivity**
**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

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

**10.3. Possibility of hazardous reactions**

Exothermic reaction with: Base, Peroxides, Oxidizing agent. Refer to chapter 10.5.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**

Keep away from: Base, Oxidizing agent, Peroxides. Substances that form flammable gases when in contact with water. Oxidizing agents, strong. peroxides. Hydrogenium peroxide. Nitric acid. perchloric acid. Potassium peroxide.

**10.6. Hazardous decomposition products**

 In case of fire may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

**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.

**ATEmix calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) &gt; 20 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-19-7	Acetic acid%				
	oral	LD50 mg/kg	3530	Rat	GESTIS
	inhalation (4 h) vapour	LC50	>40 mg/l	Rat	suppliers SDS.

**Irritation and corrosivity**

Causes severe skin burns and eye damage. (On basis of test data)

Causes serious eye damage. (On basis of test data)

**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.

**11.2. Information on other hazards**
**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

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**Other information**

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

**SECTION 12: Ecological information**
**12.1. Toxicity**

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
64-19-7	Acetic acid%					
	Acute fish toxicity	LC50 >300 mg/l	96 h	Oncorhynchus mykiss	ECHA Dossier	
	Acute algae toxicity	ErC50 >300 mg/l	72 h	Skeletonema costatum	ECHA Dossier	
	Acute crustacea toxicity	EC50 >300 mg/l	48 h	Daphnia magna	ECHA Dossier	

**12.2. Persistence and degradability**

Product is biodegradable.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
64-19-7	Acetic acid%				
	Other guideline	95%	5	suppliers SDS.	
	Easily biodegradable (concerning to the criteria of the OECD)				

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64-19-7	Acetic acid%	-0,17

**BCF**

CAS No	Chemical name	BCF	Species	Source
64-19-7	Acetic acid%	3,16		

**12.4. Mobility in soil**

The product has not been tested.

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

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

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Avoid release to the environment. Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**



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**Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**List of Wastes Code - used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**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:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Refer to section 6-8

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

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#### SECTION 15: Regulatory information

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

###### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

2010/75/EU (VOC):

No information available.

2004/42/EC (VOC):

No information available.

Information according to 2012/18/EU  
(SEVESO III):

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

###### Additional information

This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

###### National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

1 - slightly hazardous to water

##### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Acetic acid%

#### SECTION 16: Other information

##### Changes

This data sheet contains changes from the previous version in section(s): 2,4,6,7,9,10,11,12,13,14,15,16.

Rev. 2,0; 15.06.2022, Individual safety data sheet based on 11974\_collect

Rev. 2,1; 01.12.2023, general adjustment(s)

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**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen  
AGW: Arbeitsplatzgrenzwert  
AVV: Abfallverzeichnisverordnung  
CAS: Chemical Abstracts Service  
CLP: Classification, Labelling and Packaging of substances and mixtures  
DNEL: Derived No Effect Level  
d: day(s)  
EAKV: Europäisches Abfallverzeichnis gemäß Entwurf Abfallverzeichnisverordnung  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
EWC: European Waste Catalogue  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
h: hour  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level  
NOAEC: No observed adverse effect level  
NLP: No-Longer Polymers  
N/A: not applicable  
OECD: Organisation for Economic Co-operation and Development  
PNEC: predicted no effect concentration  
PBT: Persistent bioaccumulative toxic  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
REACH: Registration, Evaluation, Authorisation of Chemicals  
SVHC: substance of very high concern  
TRGS Technische Regeln fuer Gefahrstoffe  
UN: United Nations  
VOC: Volatile Organic Compounds  
VwVwS: Verwaltungsvorschrift wassergefaehrdender Stoffe  
WGK: Wassergefaehrdungsklasse  
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  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate

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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)  
 EmS: Emergency Schedules  
 MFAG: Medical First Aid Guide  
 MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
 IBC: Intermediate Bulk Container  
 For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety  
 assessment, chapter R.20 (Table of terms and abbreviations).  
 Flam. Liq: Flammable liquids  
 Skin Corr: Skin corrosion  
 Eye Dam: Eye damage

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

Classification	Classification procedure
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data

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

H226 Flammable liquid and vapour.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.

#### 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. Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

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.)*