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#### 4. First-aid measures

##### Description of first aid measures

###### **General information**

Remove contaminated soaked clothing immediately.

Seek medical advice if any symptoms occur or in cases of doubt.

###### **After inhalation**

Ensure of fresh air.

Get medical attention, if respiratory irritation develops or if breathing becomes difficult.

###### **After contact with skin**

In case of contact with skin wash off immediately with plenty of water.

Seek medical advice if any symptoms occur or in cases of doubt.

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

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

###### **After ingestion**

If swallowed give water to drink.

Never give anything by mouth to an unconscious person.

Do not induce vomiting.

Summon a doctor immediately.

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

WARNING !

Causes serious eye irritation.

OSHA Hazard Communication: This material is considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

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

Treat symptoms.

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#### 5. Fire-fighting measures

##### Extinguishing media

###### **Suitable extinguishing media**

Dry powder, Carbon dioxide, Water spray jet, water mist.

Product itself does not burn.

Fire-extinguishing activities according to surrounding.

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

Full water jet.

##### Specific hazards arising from the chemical

Not known.

##### Special protective equipment and precautions for fire-fighters

Wear self-contained breathing apparatus and protective suit.

###### **Additional information**

Cool containers at risk with water spray jet.

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#### 6. Accidental release measures

##### Personal precautions, protective equipment and emergency procedures

Use personal protective clothing.

##### Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Take up mechanically and collect in suitable container for disposal.

Where possible recycling is preferred to disposal.

Waste disposal according to local regulations.

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**Reference to other sections**

Information for safe handling look up chapter 7.

Information for personal protective equipment look up chapter 8.

Information for disposal look up chapter 13.

**7. Handling and storage**

**Precautions for safe handling**

**Advice on safe handling**

Handle and open container with care.

Ensure adequate ventilation.

Do not breathe vapours and aerosols.

Avoid contact with the skin and the eyes.

When using do not eat, drink or smoke.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

Do not smoke.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage rooms and vessels**

Keep only in original container.

**Advice on storage compatibility**

Keep containers tightly closed in a dry, well-ventilated place.

Keep away from food, drink and animal feeding stuffs.

**Further information on storage conditions**

Do not keep at temperatures below 5°C.

**8. Exposure controls/personal protection**

**Control parameters**

**Exposure limits**

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
64-19-7	Acetic acid	10	25		TWA (8 h)	PEL
		10	25		TWA (8 h)	REL
		10			TWA (8 h)	ACGIH-2016
		15	37		STEL (15 min)	REL
		15			STEL (15 min)	ACGIH-2016

**Exposure controls**

**Protective and hygiene measures**

Handle in accordance with good industrial hygiene and safety practices.

Do not breathe vapours and aerosols.

Avoid contact with the skin and the eyes.

When using do not eat, drink or smoke.

**Eye/face protection**

Safety goggles

**Hand protection**

Chemical-resistant gloves (EN 374) / NIOSH/MSHA approved

Suitable materials: Nitrile rubber.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

**Skin protection**

Light protective clothing

**Respiratory protection**

No personal respiratory protective equipment normally required.

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## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state: Liquid  
Color: No data available.  
Odor: Of acetic acid

pH-Value: 4.80 - 4.87

### **Changes in the physical state**

Melting point/freezing point: No data available.  
Initial boiling point and boiling range: approx. 100 °C  
Flash point: Not applicable.  
Flammability: No data available.  
Explosive properties: Not applicable.  
Lower explosion limits: Not applicable.  
Ignition temperature: Not applicable.  
Auto-ignition temperature: No data available.  
Decomposition temperature: No data available.  
Oxidizing properties: Not applicable.  
Vapor pressure: No data available.  
Density: 1.104 - 1.299 g/cm<sup>3</sup>  
Water solubility: Completely soluble  
(at 20 °C)  
Solubility in other solvents: No data available.  
Partition coefficient: No data available.  
Viscosity / dynamic: No data available.  
Viscosity / kinematic: No data available.  
Vapor density: No data available.  
Evaporation rate: No data available.

### Other information

No data available.

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## 10. Stability and reactivity

### Reactivity

No decomposition if stored and applied as directed.

### Chemical stability

Stability: Stable

Stable under normal conditions.

### Possibility of hazardous reactions

Hazardous reactions: Will not occur

Exothermic reaction with: Alkalis

### Conditions to avoid

Not known.

### Incompatible materials

Not known.

### Hazardous decomposition products

Not known.

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## 11. Toxicological information

### Information on toxicological effects

#### **Route(s) of Entry**

Skin and eye contact, inhalation and ingestion.

**Acute toxicity**

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

CAS No	Components				
	Exposure route	Method	Dose	Species	Source
64-19-7	Acetic acid ... %				
	oral	LD50	3310 mg/kg	Rat	GESTIS

**Irritation and corrosivity**

Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitizing effects**

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

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

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

**Severe effects after repeated or prolonged exposure**

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.

Carcinogenicity (NTP): Not listed

Carcinogenicity (IARC): Not listed

Carcinogenicity (OSHA): Not listed

**Aspiration hazard**

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

**12. Ecological information**

**Ecotoxicity**

The product has not been tested.

**Persistence and degradability**

No data available.

**Bioaccumulative potential**

The product has not been tested.

**Mobility in soil**

No data available.

**Other adverse effects**

Slightly water hazardous.

**Further information**

Do not flush into surface water or sanitary sewer system.

**13. Disposal considerations**

**Waste treatment methods**

**Advice on disposal**

Where possible recycling is preferred to disposal.

Disposal in accordance with local regulations.

**Contaminated packaging**

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

**14. Transport information**

**US DOT 49 CFR 172.101**

**Proper shipping name:**

Not regulated.

**Other applicable information**

Non hazardous material as defined by the transport regulations.

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**15. Regulatory information**

**U.S. Regulations**

**National Inventory TSCA**

All of the components are listed on the TSCA inventory.

**National regulatory information**

SARA Section 304 CERCLA:

Acetic acid (64-19-7): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Acetic acid (64-19-7): Fire hazard, Immediate (acute) health hazard

Aluminium sulfate (Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>) hydrate (1:14) (16828-12-9): Immediate (acute) health hazard

**SARA**

To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

**State Regulations**

**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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**16. Other information**

**Hazardous Materials Information Label (HMIS)**

Health: 1

Flammability: 0

Physical Hazard: 0

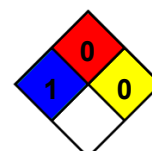
**NFPA Hazard Ratings**

Health: 1

Flammability: 0

Reactivity: 0

Unique Hazard:



**Changes**

Revision date: 07.04.2017

Revision No: 1,0

Changes in section: -

**Abbreviations and acronyms**

IMDG = International Maritime Code for Dangerous Goods

IATA/ICAO = International Air Transport Association / International Civil Aviation Organization

MARPOL = International Convention for the Prevention of Pollution from Ships

DOT = Department of Transportation

TDG = Transport of Dangerous Goods

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

CAS = Chemical Abstract Service

ISO = International Organization for Standardization

LD = Lethal dose

LC = Lethal concentration

EC = Effect concentration

IC = Median immobilisation concentration or median inhibitory concentration

**Other data**

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

**Safety Data Sheet** according to 29 CFR 1910.1200(g)

orochemie GmbH + Co. KG

Revision date: 07.04.2017

Revision No: 1,0

**XR F-6 NDT / XR F-1.5 NDT Fixierkonzentrat (NEW FORMULA)**

Product code: 1295-11

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The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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