



Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

This document replaces SDS 0099-0004 and 0099-0005 for the European Union
Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of Issue: 07/12/2020

Version: 1.0

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

1.1. Product identifier

Product Form : Mixture
Product Name : Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial.
For professional use only.
Use of the substance/mixture : Industrial use. For professional use only.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company

Bacharch, Inc.
621 Hunt Valley Circle
New Kensington, PA 15068
724-334-5760

www.mybacharach.com

msdsr@mybacharach.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification According to Regulation (EC) No. 1272/2008 [CLP]

Met. Corr. 1	H290
Acute Tox. 3 (Oral)	H301
Skin Corr. 1	H314
Eye Dam. 1	H318
Resp. Sens. 1	H334
Skin Sens. 1	H317
Muta. 2	H341
Repr. 2	H361
STOT SE 3	H335
STOT RE 2	H373
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of hazard classes and H-statements : see section 16

2.2. Label elements

Labelling According to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazard statements (CLP) :

H290 - May be corrosive to metals.
H301 - Toxic if swallowed.
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 - May cause respiratory irritation.
H341 - Suspected of causing genetic defects.
H361 - Suspected of damaging fertility or the unborn child.

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Precautionary statements (CLP)

H373 - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P234 - Keep only in original packaging.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284 - Wear respiratory protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor.
P312 - Call a POISON CENTRE or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P390 - Absorb spillage to prevent material damage.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P406 - Store in a corrosion-resistant container with a resistant inner liner.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Other hazards not contributing to the classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions. May be corrosive to respiratory tract.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Water	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	41,3 – 72,6	Not classified

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Name	Product identifier	%	Classification According to Regulation (EC) No. 1272/2008 [CLP]
Chromium(III) chloride hexahydrate	(CAS-No.) 10060-12-5 (EC-No.) 233-038-3	13,4 – 28,9	Acute Tox. 4 (Oral), H302 Resp. Sens. 1B, H334 Skin Sens. 1, H317 Repr. 2, H361fd Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Zinc	(CAS-No.) 7440-66-6 (EC-No.) 231-175-3 (EC Index-No.) 030-001-01-9	7,6 – 16,4	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Hydrochloric acid	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-00-2	5,2 – 11,1	Skin Corr. 1B, H314 STOT SE 3, H335
Mercury chloride (HgCl ₂)	(CAS-No.) 7487-94-7 (EC-No.) 231-299-8 (EC Index-No.) 080-010-00-X	0,8 – 1,7	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Skin Corr. 1B, H314 Muta. 2, H341 Repr. 2, H361f STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)
Alcohols, C7-9-iso-, C8-rich	(CAS-No.) 68526-83-0 (EC-No.) 271-231-4	0,5 – 0,6	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Hydrochloric acid	(CAS-No.) 7647-01-0 (EC-No.) 231-595-7 (EC Index-No.) 017-002-00-2	(0,1 ≤ C < 10) Met. Corr. 1, H290 (10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C < 25) STOT SE 3, H335 (10 ≤ C < 25) Met. Corr. 1, H290 (25 ≤ C < 100) Skin Corr. 1B, H314 (25 ≤ C < 100) STOT SE 3, H335 (25 ≤ C < 100) Met. Corr. 1, H290

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Wash contaminated clothing before reuse. Get immediate medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor.

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

Symptoms/effects	: Toxic if swallowed. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Skin sensitisation. Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. May cause damage to organs. Causes damage to organs through prolonged or repeated exposure. May be harmful in contact with skin.
Symptoms/effects after inhalation	: May be corrosive to the respiratory tract. Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction.
Symptoms/effects after skin contact	: Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes permanent damage to the cornea, iris, or conjunctiva.
Symptoms/effects after ingestion	: This material is toxic in small amounts orally, and can cause adverse health effects or death. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic symptoms	: Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

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

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray, dry chemical, foam, carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Not considered flammable but may burn at high temperatures.
Explosion hazard	: Contact with metallic substances may release flammable hydrogen gas.
Reactivity	: May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.
Hazardous decomposition products in case of fire	: Thermal decomposition generates: Carbon oxides (CO, CO ₂). Hydrogen chloride. Chlorine. Chromium oxides. Toxic vapours.

5.3. Advice for firefighters

Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.
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6.1.1. For non-emergency personnel

Protective equipment	: Use appropriate personal protective equipment (PPE).
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.
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Methods for cleaning up : Clean up spills immediately and dispose of waste safely. Cautiously neutralize spilled liquid. Absorb spillage to prevent material damage. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May release corrosive vapors. May be corrosive to metals.
Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe vapors, mist, spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Handle empty containers with care because they may still present a hazard.
Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.
Storage conditions : Keep container closed when not in use. Store in a dry, cool place. Store locked up. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in original container or corrosive resistant and/or lined container. Storage areas should be periodically checked for corrosion and integrity.
Incompatible materials : Strong acids, strong bases, strong oxidizers. Metals. Halogenated compounds. Ammonia. Nitrogen containing compounds, ammonium compounds.
Packaging materials : Store in corrosive resistant container with a resistant inner liner.

7.3. Specific end use(s)

Industrial use. For professional use only.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chromium(III) chloride hexahydrate (10060-12-5)		
Latvia	OEL TWA (mg/m ³)	0,01 mg/m ³
Zinc (7440-66-6)		
Slovakia	NPHV (priemerná) (mg/m ³)	0,1 mg/m ³ (respirable fraction) 2 mg/m ³ (inhalable fraction)
Hydrochloric acid (7647-01-0)		
EU	IOELV TWA (mg/m ³)	8 mg/m ³
EU	IOELV TWA (ppm)	5 ppm
EU	IOELV STEL (mg/m ³)	15 mg/m ³
EU	IOELV STEL (ppm)	10 ppm
Austria	MAK Daily average value (mg/m ³)	8 mg/m ³
Austria	MAK Daily average value (ppm)	5 ppm
Austria	MAK Short time value [mg/m ³]	15 mg/m ³
Austria	MAK Short time value [ppm]	10 ppm
Belgium	Limit value [mg/m ³]	8 mg/m ³
Belgium	Limit value [ppm]	5 ppm
Belgium	Short time value [mg/m ³]	15 mg/m ³
Belgium	Short time value [ppm]	10 ppm
Bulgaria	OEL TWA (mg/m ³)	8 mg/m ³
Bulgaria	OEL TWA (ppm)	5 ppm
Bulgaria	OEL STEL (mg/m ³)	15 mg/m ³
Bulgaria	OEL STEL (ppm)	10 ppm

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Hydrochloric acid (7647-01-0)		
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	8 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	5 ppm
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	15 mg/m ³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	10 ppm
Cyprus	OEL TWA (mg/m ³)	8 mg/m ³
Cyprus	OEL TWA (ppm)	5 ppm
Cyprus	OEL STEL (mg/m ³)	15 mg/m ³
Cyprus	OEL STEL (ppm)	10 ppm
France	VLE [mg/m ³]	7,6 mg/m ³ (restrictive limit)
France	VLE [ppm]	5 ppm (restrictive limit)
Germany	Occupational exposure limit value (mg/m ³)	3 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Germany	Occupational exposure limit value (ppm)	2 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar	Eight hours mg/m ³	8 mg/m ³
Gibraltar	Eight hours ppm	5 ppm
Gibraltar	Short-term mg/m ³	15 mg/m ³
Gibraltar	Short-term ppm	10 ppm
Greece	OEL TWA (mg/m ³)	7 mg/m ³
Greece	OEL TWA (ppm)	5 ppm
Greece	OEL STEL (mg/m ³)	7 mg/m ³
Greece	OEL STEL (ppm)	5 ppm
USA ACGIH	ACGIH Ceiling (ppm)	2 ppm
Italy	OEL TWA (mg/m ³)	8 mg/m ³
Italy	OEL TWA (ppm)	5 ppm
Italy	OEL STEL (mg/m ³)	15 mg/m ³
Italy	OEL STEL (ppm)	10 ppm
Latvia	OEL TWA (mg/m ³)	8 mg/m ³
Latvia	OEL TWA (ppm)	5 ppm
Spain	VLA-ED (mg/m ³)	7,6 mg/m ³ (indicative limit value)
Spain	VLA-ED (ppm)	5 ppm (indicative limit value)
Spain	VLA-EC (mg/m ³)	15 mg/m ³
Spain	VLA-EC (ppm)	10 ppm
Switzerland	KZGW (mg/m ³)	6 mg/m ³
Switzerland	KZGW (ppm)	4 ppm
Switzerland	MAK (mg/m ³)	3 mg/m ³
Switzerland	MAK (ppm)	2 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	8 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	15 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	2 mg/m ³ (aerosol mist and gas)
United Kingdom	WEL TWA (ppm)	1 ppm (aerosol mist and gas)

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Hydrochloric acid (7647-01-0)		
United Kingdom	WEL STEL (mg/m ³)	8 mg/m ³ (aerosol mist and gas)
United Kingdom	WEL STEL (OEL STEL) [ppm]	5 ppm (aerosol mist and gas)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	8 mg/m ³
Denmark	Grænseværdi (loftværdi) (mg/m ³)	8 mg/m ³
Denmark	Grænseværdi (loftværdi) (ppm)	5 ppm
Estonia	OEL TWA (mg/m ³)	8 mg/m ³
Estonia	OEL TWA (ppm)	5 ppm
Estonia	OEL STEL (mg/m ³)	15 mg/m ³
Estonia	OEL STEL (ppm)	10 ppm
Finland	HTP-arvo (15 min)	7,6 mg/m ³ (anhydrous and in solution)
Finland	HTP-arvo (15 min) (ppm)	5 ppm (anhydrous and in solution)
Hungary	AK-érték	8 mg/m ³
Hungary	CK-érték	16 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	8 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	5 ppm
Ireland	OEL (15 min ref) (mg/m ³)	15 mg/m ³
Ireland	OEL (15 min ref) (ppm)	10 ppm
Lithuania	IPRV (mg/m ³)	8 mg/m ³
Lithuania	IPRV (ppm)	5 ppm
Lithuania	TPRV (mg/m ³)	15 mg/m ³
Lithuania	TPRV (ppm)	10 ppm
Luxembourg	OEL TWA (mg/m ³)	8 mg/m ³
Luxembourg	OEL TWA (ppm)	5 ppm
Luxembourg	OEL STEL (mg/m ³)	15 mg/m ³
Luxembourg	OEL STEL (ppm)	10 ppm
Malta	OEL TWA (mg/m ³)	8 mg/m ³
Malta	OEL TWA (ppm)	5 ppm
Malta	OEL STEL (mg/m ³)	15 mg/m ³
Malta	OEL STEL (ppm)	10 ppm
Norway	Grenseverdier (Takverdi) (mg/m ³)	7 mg/m ³
Norway	Grenseverdier (Takverdi) (ppm)	5 ppm
Poland	NDS (mg/m ³)	5 mg/m ³
Poland	NDSCh (mg/m ³)	10 mg/m ³
Romania	OEL TWA (mg/m ³)	8 mg/m ³
Romania	OEL TWA (ppm)	5 ppm
Romania	OEL STEL (mg/m ³)	15 mg/m ³
Romania	OEL STEL (ppm)	10 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	8 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	5 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	15 mg/m ³
Slovenia	OEL TWA (mg/m ³)	8 mg/m ³ (anhydrous)
Slovenia	OEL TWA (ppm)	5 ppm (anhydrous)
Slovenia	OEL STEL (mg/m ³)	15 mg/m ³ (anhydrous)
Slovenia	OEL STEL (ppm)	10 ppm (anhydrous)
Sweden	nivågränsvärde (NVG) (mg/m ³)	3 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	2 ppm

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Hydrochloric acid (7647-01-0)		
Sweden	kortidsvärde (KTV) (mg/m ³)	6 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	4 ppm
Portugal	OEL TWA (mg/m ³)	8 mg/m ³ (indicative limit value)
Portugal	OEL TWA (ppm)	5 ppm (indicative limit value)
Portugal	OEL STEL (mg/m ³)	15 mg/m ³ (indicative limit value)
Portugal	OEL STEL (ppm)	10 ppm (indicative limit value)
Portugal	OEL - Ceilings (ppm)	2 ppm
Portugal	OEL chemical category (PT)	A4 - Not Classifiable as a Human Carcinogen
Mercury chloride (HgCl₂) (7487-94-7)		
EU	IOELV TWA (mg/m ³)	0,02 mg/m ³ (Mercury and divalent inorganic mercury compounds)
Bulgaria	OEL TWA (mg/m ³)	0,02 mg/m ³ (during the monitoring of exposure to mercury and its divalent inorganic compounds, there should be taken into account relevant biological monitoring test methods, complementary indicative limit values for occupational exposure limits (Mercury, inorganic divalent compounds)
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	0,02 mg/m ³ (Mercury, inorganic divalent compounds including Mercury(II) oxide and Mercury(II) chloride)
France	OEL chemical category (FR)	Carcinogen categories 1A, 1B, 2, Reproductive Toxin categories 1A, 1B, 2, Mutagen categories 1A, 1B, 2
France	France - BLV	0,015 mg/l Parameter: Total inorganic Mercury - Medium: blood - Sampling time: end of shift at end of workweek 0,05 mg/g creatinine Parameter: Total inorganic Mercury - Medium: urine - Sampling time: prior to shift
Greece	OEL TWA (mg/m ³)	0,02 mg/m ³
Latvia	OEL TWA (mg/m ³)	0,02 mg/m ³
Spain	VLA-ED (mg/m ³)	0,02 mg/m ³ (indicative limit value)
United Kingdom	WEL TWA (mg/m ³)	0,02 mg/m ³
Estonia	OEL TWA (mg/m ³)	0,02 mg/m ³
Finland	HTP-arvo (8h) (mg/m ³)	0,02 mg/m ³
Finland	OEL chemical category (FI)	Potential for cutaneous absorption
Lithuania	IPRV (mg/m ³)	0,02 mg/m ³ (Mercury compounds, divalent inorganic)
Lithuania	OEL chemical category (LT)	Reproductive toxin, Mutagen
Luxembourg	OEL TWA (mg/m ³)	0,02 mg/m ³
Romania	OEL TWA (mg/m ³)	0,02 mg/m ³ (the relevant biological monitoring techniques that complement the limit values for exposure to the professional environment must be taken into account during exposure monitoring for Mercury and its divalent inorganic compounds (Mercury, inorganic divalent compounds)
Slovakia	NPHV (priemerná) (mg/m ³)	0,1 mg/m ³ (value for each component is variable)
Portugal	OEL TWA (mg/m ³)	0,02 mg/m ³ (indicative limit value)

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8.2. Exposure controls

- Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.
- Personal protective equipment : Gloves. Protective clothing. Protective goggles. Face shield. Insufficient ventilation: wear respiratory protection.



- Materials for protective clothing : Chemically resistant materials and fabrics. Corrosion-proof clothing.
- Hand protection : Wear protective gloves.
- Eye and Face Protection : Chemical safety goggles and face shield.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
- Other information : Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : Blue
- Colour : No data available
- Odour : No data available
- Odour threshold : No data available
- pH : < 1
- Evaporation rate : No data available
- Melting point : No data available
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : No data available
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Solubility : No data available
- Partition coefficient: n-octanol/water : No data available
- Viscosity : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals. Contact with metals may evolve flammable hydrogen gas. May react exothermically with water releasing heat. Adding an acid to a base or base to an acid may cause a violent reaction.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

This document replaces Bacharach MSDS reference 0099-0004 and 0099-0005

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers. Metals. Halogenated compounds. Ammonia. Nitrogen containing compounds, ammonium compounds.

10.6. Hazardous decomposition products

Thermal decomposition generates: Carbon oxides (CO, CO₂). May release flammable gases. Oxides of zinc. Hydrogen chloride. Chlorine. Chromium oxides. mercury oxides. Corrosive vapors. Toxic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Toxic if swallowed.

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

ATE CLP (oral)	58,29 mg/kg bodyweight
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Chromium(III) chloride hexahydrate (10060-12-5)

LD50 oral rat	1870 mg/kg
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Hydrochloric acid (7647-01-0)

LD50 oral	238 mg/kg
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LD50 dermal rabbit	> 5010 mg/kg
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Mercury chloride (HgCl₂) (7487-94-7)

LD50 oral rat	1 mg/kg
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LD50 oral	35,1 mg/kg
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LD50 dermal rabbit	41 mg/kg
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Alcohols, C7-9-iso-, C8-rich (68526-83-0)

LD50 oral rat	> 2000 mg/kg
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LD50 dermal rabbit	> 2623 mg/kg
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Skin corrosion/irritation : Causes severe skin burns.

pH: < 1

Serious eye damage/irritation : Causes serious eye damage.

pH: < 1

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Hydrochloric acid (7647-01-0)

IARC group	3
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Mercury chloride (HgCl₂) (7487-94-7)

IARC group	3
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National Toxicology Program (NTP) Status	Evidence of Carcinogenicity.
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Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : May cause respiratory irritation.
Causes damage to organs

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
Causes damage to organs through prolonged or repeated exposure

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

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Symptoms/Injuries After Inhalation	: May be corrosive to the respiratory tract. Exposure may produce cough, mucous secretions, shortness of breath, chest tightness or other symptoms indicative of an allergic/sensitization reaction.
Symptoms/Injuries After Skin Contact	: Causes severe irritation which will progress to chemical burns. May cause an allergic skin reaction.
Symptoms/Injuries After Eye Contact	: Causes permanent damage to the cornea, iris, or conjunctiva.
Symptoms/Injuries After Ingestion	: This material is toxic in small amounts orally, and can cause adverse health effects or death. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Chronic Symptoms	: Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
Potential adverse human health effects and symptoms	: Toxic if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Chromium(III) chloride hexahydrate (10060-12-5)

ErC50 (algae)	0,4 mg/l
NOEC chronic crustacea	0,7 mg/l

Zinc (7440-66-6)

LC50 fish 1	2,16 – 3,05 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0,139 – 0,908 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	0,211 – 0,269 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])
ErC50 (algae)	0,15 mg/l

Hydrochloric acid (7647-01-0)

LC50 fish 1	7,45 mg/l (Species: Oncorhynchus mykiss - Exposure time: 96h)
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Mercury chloride (HgCl₂) (7487-94-7)

LC50 fish 1	0,096 – 0,133 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	> 0,012 mg/l (Exposure time: 48 h - Species: Daphnia magna [semi-static])
LC50 fish 2	0,4 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [semi-static])
EC50 Daphnia 2	0,0015 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC chronic crustacea	0,003 mg/l

Alcohols, C7-9-iso-, C8-rich (68526-83-0)

LC50 fish 1	14 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
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12.2. Persistence and degradability

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

Persistence and degradability	May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative potential

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

This document replaces Bacharach MSDS reference 0099-0004 and 0099-0005

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.
Additional information : Container may remain hazardous when empty. Continue to observe all precautions.
Ecology - waste materials : Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: Transport information

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued. In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
2922	2922	2922	2922	2922
14.2. UN proper shipping name				
CORROSIVE LIQUID, TOXIC, N.O.S. (Contains; Mercury Chloride; Hydrochloric Acid)	CORROSIVE LIQUID, TOXIC, N.O.S. (Contains; Mercury Chloride; Hydrochloric Acid)	Corrosive liquid, toxic, n.o.s. (Contains; Mercury Chloride; Hydrochloric Acid)	CORROSIVE LIQUID, TOXIC, N.O.S. (Contains; Mercury Chloride; Hydrochloric Acid)	CORROSIVE LIQUID, TOXIC, N.O.S. (Contains; Mercury Chloride; Hydrochloric Acid)
14.3. Transport hazard class(es)				
8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)	8 (6.1)
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes

14.6. Special precautions for user

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7% ; Hydrochloric acid
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

This document replaces Bacharach MSDS reference 0099-0004 and 0099-0005

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According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Water (7732-18-5)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Zinc (7440-66-6)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Hydrochloric acid (7647-01-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Mercury chloride (HgCl₂) (7487-94-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Alcohols, C7-9-iso-, C8-rich (68526-83-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Date of Preparation or Latest Revision : 7/12/2020

Data sources : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

Other information : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full Text of H- and EUH-statements:

Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Resp. Sens. 1	Respiratory sensitisation, Category 1
Resp. Sens. 1B	Respiratory sensitisation, Category 1B
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.

Fluid, Fyrite, O2, 21% and 60%; Fluid, Fyrite, O2, 7%

This document replaces Bacharach MSDS reference 0099-0004 and 0099-0005

Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H361	Suspected of damaging fertility or the unborn child.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Indication of Changes No additional information available

Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists

ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

ATE - Acute Toxicity Estimate

BCF - Bioconcentration Factor

BEI - Biological Exposure Indices (BEI)

BOD – Biochemical Oxygen Demand

CAS No. - Chemical Abstracts Service Number

CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008

COD – Chemical Oxygen Demand

EC – European Community

EC50 - Median Effective Concentration

EEC – European Economic Community

EINECS – European Inventory of Existing Commercial Chemical Substances

EmS-No. (Fire) - IMDG Emergency Schedule Fire

EmS-No. (Spillage) - IMDG Emergency Schedule Spillage

EU – European Union

ErC50 - EC50 in Terms of Reduction Growth Rate

GHS – Globally Harmonized System of Classification and Labeling of Chemicals

IARC - International Agency for Research on Cancer

IATA - International Air Transport Association

IBC Code - International Bulk Chemical Code

IMDG - International Maritime Dangerous Goods

IPRV - Ilgalaikio Poveikio Ribinis Dydis

IOELV – Indicative Occupational Exposure Limit Value

LC50 - Median Lethal Concentration

LD50 - Median Lethal Dose

LOAEL - Lowest Observed Adverse Effect Level

LOEC - Lowest-Observed-Effect Concentration

Log Koc - Soil Organic Carbon-water Partitioning Coefficient

Log Kow - Octanol/water Partition Coefficient

Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water

MAK – Maximum Workplace Concentration/Maximum Permissible Concentration

MARPOL - International Convention for the Prevention of Pollution

EU GHS SDS 0099-1018 AND 0099-1019

NDS - Najwyższe Dopuszczalne Stezenie

NDSCh - Najwyższe Dopuszczalne Stezenie Chwilowe

NDSP - Najwyższe Dopuszczalne Stezenie Pulapowe

NOAEL - No-Observed Adverse Effect Level

NOEC - No-Observed Effect Concentration

NRD - Nevirsytinas Ribinis Dydis

NTP – National Toxicology Program

OEL - Occupational Exposure Limits

PBT - Persistent, Bioaccumulative and Toxic

PEL - Permissible Exposure Limit

pH – Potential Hydrogen

REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals

RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

SADT - Self Accelerating Decomposition Temperature

SDS - Safety Data Sheet

STEL - Short Term Exposure Limit

STOT - Specific Target Organ Toxicity

TA-Luft - Technische Anleitung zur Reinhaltung der Luft

TEL TRK – Technical Guidance Concentrations

ThOD – Theoretical Oxygen Demand

TLM - Median Tolerance Limit

TLV - Threshold Limit Value

TPRD - Trumpalaikio Poveikio Ribinis Dydis

TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern

TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine

TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte

TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte

TSCA - Toxic Substances Control Act

TWA - Time Weighted Average

VOC – Volatile Organic Compounds

VLA-EC - Valor Límite Ambiental Exposición de Corta Duración

VLA-ED - Valor Límite Ambiental Exposición Diaria

VLE – Valeur Limite D'exposition

VME – Valeur Limite De Moyenne Exposition

vPvB - Very Persistent and Very Bioaccumulative

WEL – Workplace Exposure Limit

WGK - Wassergefährdungsklasse

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.