Safety Data Sheet

chlorine

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SDS Reference Number: EST-CL2-022

Issue date: 3/19/2015 Revision date: 6/13/2025 Supersedes version of: 2/2/2023 Version: 3.0

Danger



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

1.1. Product identifier

Trade name : chlorine
SDS no : EST-CL2-022
Other means of identification : chlorine

CAS-No. : 7782-50-5 EC-No. : 231-959-5 EC Index-No. : 017-001-00-7

REACH registration No : 01-2119486560-35

Chemical formula : Cl2

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

Relevant identified uses : See the list of identified uses and exposure scenarios in the annex of the safety data sheet.

Perform risk assessment prior to use.

Uses advised against : Consumer use.

Uses other than those listed above are not supported, contact your supplier for more information

on other uses.

1.3. Details of the supplier of the safety data sheet

Elme Messer Gaas AS Kopli 103

11712 Tallinn Estonia T +372 6102001

info@elmemesser.ee, www.elmemesser.ee

1.4. Emergency telephone number

Emergency telephone number : Mürgistusteabekeskus, Terviseamet: tel. 16662, (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Physical hazards
Oxidising Gases, Category 1
H270
Gases under pressure: Liquefied gas
Health hazards
Acute toxicity (inhalation:gas) Category 2
H330
Skin corrosion/irritation, Category 2
H315
Serious eye damage/eye irritation, Category 2
Specific target organ toxicity – Single exposure, Category 3,

Respiratory tract irritation

Environmental hazards Hazardous to the aquatic environment – Acute Hazard, H400 (M=100)

Category 1

2.2. Label elements

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

Hazard pictograms (CLP)





GHS04





GHS06

GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H270 - May cause or intensify fire; oxidiser.

 $\mbox{H280}\mbox{ - Contains gas under pressure; may explode if heated.}$

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H330 - Fatal if inhaled.

 ${\tt EUH071-Corrosive\ to\ the\ respiratory\ tract}.$

EUH071 supersedes H335 when assigned in the classification.

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Precautionary statements (CLP)

- Prevention : P280 - Wear eye protection, face protection, protective clothing, protective gloves.

P273 - Avoid release to the environment. P260 - Do not breathe gas, vapours.

P244 - Keep valves and fittings free from oil and grease.

P220 - Keep away from clothing and other combustible materials. P332+P313 - If skin irritation occurs: Get medical advice/attention.

P304+P340+P315 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Get immediate medical advice.

P305+P351+P338+P315 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice.

P370+P376 - In case of fire: Stop leak if safe to do so. P302+P352 - IF ON SKIN: Wash with plenty of water.

- Storage : P405 - Store locked up.

P403 - Store in a well-ventilated place.

2.3. Other hazards

- Response

Not classified as PBT or vPvB.

The substance/mixture has no endocrine disrupting properties.

Not classified as PMT or vPvM.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP] ATE, EUH-statements, M-Factors
chlorine	CAS-No.: 7782-50-5 EC-No.: 231-959-5 EC Index-No.: 017-001-00-7 REACH registration No: 01-2119486560-35	100	Ox. Gas 1, H270 Press. Gas (Liq.), H280 Acute Tox. 2 (Inhalation:gas), H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 (M=100)

Name	Product identifier	Specific concentration limits (%)
chlorine	CAS-No.: 7782-50-5 EC-No.: 231-959-5 EC Index-No.: 017-001-00-7 REACH registration No: 01-2119486560-35	(1 ≤ C ≤ 100) STOT SE 3; H335

Contains no other components or impurities which will influence the classification of the product.

3.2. Mixtures Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- Inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim

warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing stopped.

- Skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

: Immediately flush eyes thoroughly with water for at least 15 minutes.

- Ingestion : Ingestion is not considered a potential route of exposure.

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

May cause irritation to cornea (with temporary disturbance to vision).

May cause irritation to skin.

Material is destructive to tissue of the mucuous membranes and upper respiratory tract. Cough,

shortness of breath, headache, nausea.

See section 11.

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

Obtain medical assistance.

Treat with corticosteroid spray as soon as possible after inhalation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Eye contact

- Suitable extinguishing media : Water spray or fog.

Product does not burn, use fire control measures appropriate for the surrounding fire.

- Unsuitable extinguishing media : Do not use water jet to extinguish.

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5.2. Special hazards arising from the substance or mixture

Specific hazards : Supports combustion.

Exposure to fire may cause containers to rupture/explode.

None that are more hazardous than the product itself.

Hazardous combustion products

5.3. Advice for firefighters

Specific methods

: Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation

may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage

systems.

If possible, stop flow of product.

Use water spray or fog to knock down fire fumes if possible.

Move containers away from the fire area if this can be done without risk.

Special protective equipment for fire fighters : Wear gas tight chemically protective clothing in combination with self contained breathing

apparatus.

Standard EN 943-2: Protective clothing against liquid and gaseous chemicals, aerosols and solid

particles. Gas-tight chemical protective suits for emergency teams.

Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face

mask.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Act in accordance with local emergency plan.

Try to stop release. Evacuate area.

Eliminate ignition sources. Ensure adequate air ventilation.

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be

dangerous. Stay upwind.

See section 8 of the SDS for more information on personal protective equipment.

For emergency responders : Monitor concentration of released product.

Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be

sate.

See section 5.3 of the SDS for more information.

6.2. Environmental precautions

Try to stop release.

Reduce vapour with fog or fine water spray.

6.3. Methods and material for containment and cleaning up

Hose down area with water.

Wash contaminated equipment or sites of leaks with copious quantities of water.

6.4. Reference to other sections

See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe use of the product : Avoid contact with aluminium.

Use no oil or grease.

Use only properly specified equipment which is suitable for this product, its supply pressure and

temperature. Contact your gas supplier if in doubt.

Avoid exposure, obtain special instructions before use.

Do not smoke while handling product.

 $\label{thm:continuous} \textbf{Keep equipment free from oil and grease. For more guidance, refer to the EIGA Doc.~33-Cleaning of the equipment of the expression of the expression$

Equipment for Oxygen Service downloadable at http://www.eiga.eu.

Avoid suck back of water, acid and alkalis.

Only experienced and properly instructed persons should handle $\,$ gases under pressure.

Ensure the complete gas system was (or is regularily) checked for leaks before use.

Installation of a cross purge assembly between the container and the regulator is recommended. Purge system with dry inert gas (e.g. helium or nitrogen) before gas is introduced and when system is placed out of service.

The product must be handled in accordance with good industrial hygiene and safety procedures.

Consider pressure relief device(s) in gas installations.

Do not breathe gas.

Avoid release of product into work area.

Use only lubricants and sealings approved for the specific gas service.

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Safe handling of the gas receptacle

: Do not allow backfeed into the container.

Protect containers from physical damage; do not drag, roll, slide or drop.

When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.

Leave valve protection caps, when provided, in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.

If user experiences any difficulty operating valve discontinue use and contact supplier.

Never attempt to repair or modify container valves or safety relief devices.

Damaged valves should be reported immediately to the supplier.

Keep container valve outlets clean and free from contaminants particularly oil and water. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.

Close container valve after each use and when empty, even if still connected to equipment.

Never attempt to transfer gases from one cylinder/container to another.

Never use direct flame or electrical heating devices to raise the pressure of a container.

Do not remove or deface labels provided by the supplier for the identification of the content of the

Suck back of water into the container must be prevented.

Open valve slowly to avoid pressure shock.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up.

Segregate from flammable gases and other flammable materials in store.

Observe all regulations and local requirements regarding storage of containers.

Containers should not be stored in conditions likely to encourage corrosion.

Container valve guards or caps, when provided, should be in place.

Containers should be stored in the vertical position and properly secured to prevent them from falling over

Stored containers should be periodically checked for general condition and leakage.

Keep container below 50°C in a well ventilated place.

Store containers in location free from fire risk and away from sources of heat and ignition.

Keep away from combustible materials.

7.3. Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	
chlorine (7782-50-5)	
Estonia - Occupational Exposure Limits	
Local name	Kloor
OEL STEL	1.5 mg/m³
	0.5 ppm
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I. 02.04.2024. 13)

chlorine (7782-50-5)	
DNEL: Derived no effect level (Workers)	
Acute - local effects, inhalation	1.5 mg/m ³
Acute - systemic effects, inhalation	1.5 mg/m ³
Long-term - local effects, inhalation	0.75 mg/m³
Long-term - systemic effects, inhalation	0.75 mg/m³

chlorine (7782-50-5)	
PNEC: Predicted no effect concentration	
Aqua (freshwater)	0.00021 mg/l
Aqua (marine water)	0.000042 mg/l
Aquatic, intermittent releases	0.00026 mg/l
Micro-organisms in sewage treatment plant (STP)	0.03 mg/l

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Product to be handled in a closed system and under strictly controlled conditions.

Provide adequate general and local exhaust ventilation.

Preferably use permanent leak-tight installations (e.g. welded pipes). Systems under pressure should be regularily checked for leakages. Ensure exposure is below occupational exposure limits (where available). Gas detectors should be used when toxic gases may be released.

Consider the use of a work permit system e.g. for maintenance activities.

8.2.2. Individual protection measures, e.g. personal protective equipment

A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following

recommendations should be considered:
PPE compliant to the recommended EN/ISO standards should be selected.

: Wear goggles and a face shield when transfilling or breaking transfer connections.

Provide readily accessible eye wash stations and safety showers. Standard EN 166 - Personal eye-protection - specifications.

Standard EN ISO 16321-1 - Eye and face protection for occupational use Part 1: General

requirements.

• Skin protection

- Other

• Eye/face protection

- Hand protection : Wear working gloves when handling gas containers.

Wear chemically resistant protective gloves.

Standard EN 374 - Protective gloves against chemicals.

Standard EN 388 - Protective gloves against mechanical risks, performance level 1 or higher. Recommended types include wrist gloves from leather or synthetic material with equivalent

performance, fabric gloves, fabric gloves with leather palms.

 $Permeation\ time:\ minimum\ > 30min\ short\ term\ exposure:\ material\ /\ thickness\ [mm]\ Chloroprene$

rubber (CR) 0,4.

Permeation time: minimum >480min long term exposure: material / thickness [mm]

Fluoroelastomer (FKM) 0,7.

Consult glove manufacturer's product information on material suitability and material thickness. The breakthrough time of the selected gloves must be greater than the intended use period. Keep suitable chemically resistant protective clothing readily available for emergency use.

Standard EN943-1 - Full protective suits against liquid, solid and gaseous chemicals.

Wear safety shoes while handling containers.

Standard EN ISO 20345 - Personal protective equipment - Safety footwear.

• Respiratory protection : Recommended: Filter B (grey).

Self contained breathing apparatus is recommended, where unknown exposure may be expected,

e.g. during maintenance activities on installation systems.

Gas filters may be used if all surrounding conditions e.g. type and concentration of the $\,$

contaminant(s) and duration of use are known.

Use gas filters with full face mask, where exposure limits may be exceeded for a short-term period,

e.g. connecting or disconnecting containers.
Gas filters do not protect against oxygen deficiency.

Standard EN 14387 - Gas filter(s), combined filter(s) and standard EN136, full face masks .

Keep self contained breathing apparatus readily available for emergency use.

Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face

mask.

Not applicable.

• Thermal hazards : None in addition to the above sections.

8.2.3. Environmental exposure controls

Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Upper explosion limit

- Physical state at 20°C / 101.3kPa : Gas.
- Colour : Greenish gas.

Odour : Pungent.

Melting point / Freezing point : -101 °C

Boiling point : -34 °C

Flammability : Non flammable.

Lower explosion limit : Not applicable.

Flash point : Not applicable for gases and gas mixtures.

Auto-ignition temperature : Non flammable.

Decomposition temperature : Not applicable.

pH : If dissolved in water pH-value will be affected.

Viscosity, kinematic : No reliable data available.

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Water solubility [20°C] : 8620 mg/l

Partition coefficient n-octanol/water (Log Kow) : Not applicable for inorganic products.

 Vapour pressure [20°C]
 : 6.8 bar(a)

 Vapour pressure [50°C]
 : 14.3 bar(a)

Density and/or relative density : Not applicable for gases and gas mixtures.

Relative vapour density (air=1) : 2.5

Particle characteristics : Not applicable for gases and gas mixtures.

Nanoforms are not relevant for gases and gas mixtures.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Oxidising properties : Oxidiser. - Coefficient of oxygen equivalency (Ci) : 0.7
Critical temperature [°C] : 144 °C

9.2.2. Other safety characteristics

Molar mass : 71 g/mol

Other data : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground

level.

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Violently oxidises organic material.

10.4. Conditions to avoid

Avoid moisture in installation systems.

10.5. Incompatible materials

May react violently with alkalis.

With water causes rapid corrosion of some metals.

Reacts with water to form corrosive acids.

Moisture

May react violently with combustible materials. May react violently with reducing agents.

Keep equipment free from oil and grease. For more guidance, refer to the EIGA Doc. 33 - Cleaning of

Equipment for Oxygen Service downloadable at http://www.eiga.eu. For additional information on compatibility refer to ISO 11114.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity : Fatal if inhaled.

chlo	orine	(7782	2-50-5)
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LC50 Inhalation - Rat [ppm]	293 ppm/1h (ADR)
	146.5 ppm/4h (CLP)

 Skin corrosion/irritation
 : Causes skin irritation.

 Serious eye damage/irritation
 : Causes serious eye irritation.

 Respiratory or skin sensitisation
 : No known effects from this product.

 Germ cell mutagenicity
 : No known effects from this product.

 Carcinogenicity
 : No known effects from this product.

 Toxic for reproduction: Fertility
 : No known effects from this product.

 Toxic for reproduction: unborn child
 : No known effects from this product.

STOT-single exposure : May cause inflammation of the respiratory system.

Severe corrosion to the respiratory tract at high concentrations.

Target organ(s) : Respiratory tract.

STOT-repeated exposure: No known effects from this product.Aspiration hazard: Not applicable for gases and gas mixtures.

11.2. Information on other hazards

Other information : Delayed fatal pulmonary oedema possible.

The substance/mixture has no endocrine disrupting properties.

SECTION 12: Ecological information

12.1. Toxicity

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Assessment : Very toxic to aquatic life.

 EC50 48h - Daphnia magna [mg/l]
 : 0.141 mg/l

 EC50 72h - Algae [mg/l]
 : 0.001 - 0.01

 LC50 96 h - Fish [mg/l]
 : 0.032 mg/l

12.2. Persistence and degradability

Assessment : Not applicable for inorganic products.

 12.3. Bioaccumulative potential

 Assessment
 : No data available.

12.4. Mobility in soil

Assessment : Because of its high volatility, the product is unlikely to cause ground or water pollution.

Partition into soil is unlikely.

12.5. Results of PBT and vPvB assessment

Assessment : Not classified as PBT or vPvB.

12.6. Endocrine disrupting properties

Assessment : The substance/mixture has no endocrine disrupting properties.

12.7. Other adverse effects

Other adverse effects : May cause pH changes in aqueous ecological systems.

Effect on the ozone layer : No effect on the ozone layer.

Effect on global warming : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Contact supplier if guidance is required.

Ensure that the emission levels from local regulations or operating permits are not exceeded. Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at http://www.eiga.eu for more guidance on suitable disposal methods.

Must not be discharged to atmosphere.

Return unused product in original container to supplier.

List of hazardous waste codes (from Commission

Decision 2000/532/EC as amended)

: 16 05 04 *: Gases in pressure containers (including halons) containing hazardous substances.

13.2. Additional information

External treatment and disposal of waste should comply with applicable local and/or national regulations.

SECTION 14: Transport information

14.1. UN number or ID number

In accordance with ADR / RID / IMDG / IATA / ADN

UN-No. : 1017

14.2. UN proper shipping name

Transport by road/rail/inland waterways : CHLORINE

(ADR/RID/ADN)

Transport by air (ICAO-TI / IATA-DGR) : Chlorine
Transport by sea (IMDG) : CHLORINE

14.3. Transport hazard class(es)

Labelling









2.3 : Toxic gases.

5.1 : Oxidizing substances.8 : Corrosive substances.

Environmentally hazardous substances

Transport by road/rail/inland waterways (ADR/RID/ADN)

Class : 2 Classification code : 2TOC Hazard identification number : 265

Tunnel Restriction : C/D - Tank carriage : Passage forbidden through tunnels of category C, D and E. Other carriage :

Passage forbidden through tunnels of category D and E

Transport by sea (IMDG)

 Class / Div. (Sub. risk(s))
 : 2.3 (5.1, 8)

 Emergency Schedule (EmS) - Fire
 : F-C

 Emergency Schedule (EmS) - Spillage
 : S-U

14.4. Packing group

Transport by road/rail/inland waterways : Not applicable.

(ADR/RID/ADN)

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Not applicable.

Not applicable.

Marine pollutant.

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: Environmentally hazardous substance / mixture.

Transport by air (ICAO-TI / IATA-DGR)

Transport by sea (IMDG)

14.5. Environmental hazards

Transport by road/rail/inland waterways

(ADR/RID/ADN)

Transport by air (ICAO-TI / IATA-DGR) Environmentally hazardous substance / mixture.

Transport by sea (IMDG)

14.6. Special precautions for user

Packing Instruction(s)

Transport by road/rail/inland waterways : P200.

(ADR/RID/ADN)

Transport by air (ICAO-TI / IATA-DGR)

Passenger and Cargo Aircraft Forbidden. Cargo Aircraft only Forbidden. Transport by sea (IMDG) P200.

Special transport precautions

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the

event of an accident or an emergency. Before transporting product containers: - Ensure there is adequate ventilation. - Ensure that containers are firmly secured. - Ensure valve is closed and not leaking.

- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.

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-Regulations

Restrictions on use : None.

Not listed on the PIC list (Regulation EU 649/2012). Other information, restriction and prohibition Not listed on the POP list (Regulation EU 2019/1021).

Seveso Directive: 2012/18/EU (Seveso III) : Listed.

National regulations

Regulatory reference : Ensure all national/local regulations are observed.

15.2. Chemical safety assessment

A CSA has been carried out.

SECTION 16: Other information

Indication of changes : Revised safety data sheet in accordance with commission regulation (EU) No 2020/878.

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Abbreviations and acronyms

: ATE - Acute Toxicity Estimate.

CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.

EINECS - European Inventory of Existing Commercial Chemical Substances.

CAS# - Chemical Abstract Service number.

PPE - Personal Protection Equipment.

LC50 - Lethal Concentration to 50 % of a test population.

RMM - Risk Management Measures.

PBT - Persistent, Bioaccumulative and Toxic.

vPvB - Very Persistent and Very Bioaccumulative.

STOT- SE: Specific Target Organ Toxicity - Single Exposure.

CSA - Chemical Safety Assessment.

EN - European Standard.

UN - United Nations.

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road.

IATA - International Air Transport Association.

IMDG code - International Maritime Dangerous Goods.

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.

WGK - Water Hazard Class.

STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.

UFI: Unique Formula Identifier.

ADN -International Carriage of Dangerous Goods by Inland Waterways.

PROC -Process category

ERC – Environmental release category.
PMT - Persistent, Mobile and Toxic.
vPvM – very Persistent and very Mobile.
Users of breathing apparatus must be trained.

Training advice : Users of breathing apparatus must be trained.
Ensure operators understand the toxicity hazard.

Classification in accordance with the procedures and calculation methods of Regulation (EC)

1272/2008 (CLP).

Key literature references and sources of data are maintained in EIGA doc 169: 'Classification and

Labelling Guide', downloadable at http://www.Eiga.eu .

Full text of H- and EUH-statements		
Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2	
Ox. Gas 1	Oxidising Gases, Category 1	
Press. Gas (Liq.)	Gases under pressure : Liquefied gas	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	
H270	May cause or intensify fire; oxidiser.	
H280	Contains gas under pressure; may explode if heated.	
H315	Causes skin irritation.	
Н319	Causes serious eye irritation.	
Н330	Fatal if inhaled.	
Н335	May cause respiratory irritation.	
H400	Very toxic to aquatic life.	
EUH071	Corrosive to the respiratory tract.	

DISCLAIMER OF LIABILITY

Further information

: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

End of document



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