

10% Carbon dioxide in Ethylene oxide

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Reference number: SDS 00218 Issue date: 10/23/2014 Revision date: 1/9/2023 Version: 4.0

Danger



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

1.1. Product identifier

SDS no : SDS 00218

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

Relevant identified uses : Industrial and professional uses. 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

Air Liquide UK Ltd Station Road, Coleshill Birmingham, B46 1JY

1.4. Emergency telephone number

Emergency telephone number : 01675 462695 (Available 24/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Physical hazards Flammable gases, Category 1A H220 Gases under pressure: Liquefied gas H280 Health hazards Acute toxicity (inhalation:gas) Category 3 H331 Skin corrosion/irritation, Category 2 H315 Serious eye damage/eye irritation, Category 2 H319 Germ cell mutagenicity, Category 1B H340 Carcinogenicity, Category 1B H350 Specific target organ toxicity - Single exposure, Category 3, H335 Respiratory tract irritation

2.2. Label elements

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

Hazard pictograms (CLP)









H372

GHS02

GHS04

GHS06

Signal word (CLP)

Specific target organ toxicity - Repeated exposure, Category 1

: Danger

GHS08

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Hazard statements (CLP) : H220 - Extremely flammable gas.

H280 - Contains gas under pressure; may explode if heated.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H331 - Toxic if inhaled.

H335 - May cause respiratory irritation. H340 - May cause genetic defects.

H350 - May cause cancer.

H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (CLP)

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

P260 - Do not breathe gas, vapours.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

- Response : P308+P313 - IF exposed or concerned: Get medical advice/attention.

P304+P340+P315 - IF INHALED : Remove victim to fresh air and keep at rest in a position

comfortable for breathing. Get immediate medical advice / attention.

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 / attention.

Supplemental information Restricted to professional users.

2.3. Other hazards

Contact with liquid may cause cold burns/frostbite.

Not classified as PBT or vPvB.

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]
Ethylene oxide	CAS-No.: 75-21-8 EC-No.: 200-849-9 EC Index-No.: 603-023-00-X REACH-no: 01-2119432402-53	5 – 99	Flam. Gas 1A - Chem. Unst. Gas A, H220;H230 Press. Gas (Liq.), H280 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3 (Inhalation:gas), H331 Muta. 1B, H340 STOT SE 3, H335 Carc. 1B, H350 STOT RE 1, H372
Carbon dioxide	CAS-No.: 124-38-9 EC-No.: 204-696-9 EC Index-No.: REACH-no: *1	10	Press. Gas (Liq.), H280

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

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

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^{*1:} Listed in Annex IV / V REACH, exempted from registration.

^{*3:} Registration not required: Substance manufactured or imported < 1t/y.



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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.

In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain

medical assistance.

- Eye contact : 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

In high concentrations may cause asphyxiation. Symptoms may include loss of

mobility/consciousness. Victim may not be aware of asphyxiation. May cause irritation to cornea (with temporary disturbance to vision).

May cause irritation to skin.

May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat

with constricting sensation of the larynx and difficulty in breathing.

See section 11.

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

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Shutting off the source of the gas is the preferred method of control.

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

5.2. Special hazards arising from the substance or mixture

Specific hazards : Exposure to fire may cause containers to rupture/explode.

Hazardous combustion products : Carbon monoxide.

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.

Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive

re-ignition may occur. Extinguish any other fire.

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.

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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.

Consider the risk of potentially explosive atmospheres.

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

to be safe.

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

: Do not breathe gas.

Avoid release of product into atmosphere.

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

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

Consider pressure relief device(s) in gas installations.

Ensure the complete gas system was (or is regularily) checked for leaks before use. Do not smoke while handling product.

Avoid exposure, obtain special instructions before use.

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

and temperature. Contact your gas supplier if in doubt.

Installation of a cross purge assembly between the container and the regulator is

recommended.

Avoid suck back of water, acid and alkalis.

Assess the risk of potentially explosive atmospheres and the need for explosion-proof

equipment.

Purge air from system before introducing gas.

Take precautionary measures against static discharge.

Keep away from ignition sources (including static discharges).

Consider the use of only non-sparking tools. Ensure equipment is adequately earthed.

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Safe handling of the gas receptacle

: Refer to supplier's container handling instructions.

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 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

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

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 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.

Segregate from oxidant gases and other oxidants in store.

All electrical equipment in the storage areas should be compatible with the risk of a potentially explosive atmosphere.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethylene oxide (75-21-8)	
DNEL: Derived no effect level (Workers)	
Acute - systemic effects, inhalation	10 mg/m³
Long-term - systemic effects, inhalation	2 mg/m³

Ethylene oxide (75-21-8)	
PNEC: Predicted no effect concentration	
Aqua (freshwater)	0.084 mg/l
Aqua (marine water)	0.0084 mg/l
Sediment, freshwater	0.178 mg/kg dwt
Sediment,marine water	0.0178 mg/kg dwt

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Soil, agricultural	0.0136 mg/kg dwt
Micro-organisms in sewage treatment plant (STP)	13 mg/l

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.

Standard EN 166 - Personal eye-protection - specifications.

Provide readily accessible eye wash stations and safety showers.

Skin protection

- Other

· Respiratory protection

· Eye/face protection

Wear chemically resistant protective gloves. - Hand protection

Wear working gloves when handling gas containers.

Standard EN 388 - Protective gloves against mechanical risk, performance level 1 or higher.

Wear cold insulating gloves when transfilling or breaking transfer connections.

Standard EN 511 - Cold insulating gloves.

Standard EN 374 - Protective gloves against chemicals.

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.

Consider the use of flame resistant anti-static safety clothing.

Standard EN ISO 14116 - Limited flame spread materials.

Standard EN 1149-5 - Protective clothing: Electrostatic properties.

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.

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.

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

Consult respiratory device supplier's product information for the selection of the appropriate

device.

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.

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

expected, e.g. during maintenance activities on installation systems.

 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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

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

Odour Odour threshold is subjective and inadequate to warn of overexposure.

Mixture contains one or more component(s) which have the following odour:

Ethereal

: Not applicable for gas mixtures. Melting point / Freezing point Boiling point Not applicable for gas mixtures.

It is technically not possible to determine the boiling point or range of this mixture.

Component with lowest boiling point: Carbon dioxide -56.6 °C

Flammability Flammability range not available.

Extremely flammable gas.

Lower explosion limit : Calculated value: 2.89%

Upper explosion limit : No test data or calculation method available.

Flash point : Not applicable for gas mixtures.

Auto-ignition temperature : Not known.

Auto ignition temperature for mixtures is not available. Component with lowest auto-ignition

temperature : Ethylene oxide 435 °C

Decomposition temperature : Not applicable.

рΗ Not applicable for gas mixtures.

Viscosity, kinematic Not applicable. Water solubility [20°C] Completely soluble.

Partition coefficient n-octanol/water (Log Kow) Not applicable for gas mixtures. Vapour pressure [20°C]

No reliable data available.

Component with lowest volatility: Ethylene oxide 1.4 bar(a) Component with highest volatility: Carbon dioxide 57.3 bar(a)

Vapour pressure [50°C] No reliable data available.

Density and/or relative density Not applicable. Relative vapour density (air=1) Heavier than air. Particle characteristics Not applicable.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties : Not applicable.

Explosion limits : Flammability range not available.

Oxidising properties : Not applicable.

9.2.2. Other safety characteristics

Molar mass : Not applicable for gas mixtures. Evaporation rate : Not applicable for gas mixtures.

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.

Data for mixture are not available.

This mixture contains components with the following reactivity: Can form explosive mixture

with air. May react violently with oxidants.

10.2. Chemical stability

Stable under normal conditions

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10.3. Possibility of hazardous reactions

Can form explosive mixture with air. May react violently with oxidants.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Avoid moisture in installation systems.

10.5. Incompatible materials

Air, Oxidisers.

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 : Toxic if inhaled.

Et	hylene oxide (75-21-8)	

LC50 Inhalation - Rat [ppm] 1450 ppm/4h

Skin corrosion/irritation : Causes skin irritation.

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 : May cause genetic defects.

Carcinogenicity : May cause cancer.

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 respiratory irritation.

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

Aspiration hazard : Not applicable for gases and gas mixtures.

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Assessment : Classification criteria are not met.

EC50 48h - Daphnia magna [mg/l] : No data available. EC50 72h - Algae [mg/l] : No data available. LC50 96 h - Fish [mg/l] : No data available.

Carbon dioxide (124-38-9)	
EC50 48h - Daphnia magna [mg/l]	No data available.
EC50 72h - Algae [mg/l]	No data available.
LC50 96 h - Fish [mg/l]	No data available.

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Ethylene oxide (75-21-8)	
EC50 48h - Daphnia magna [mg/l]	137 - 300 mg/l
EC50 72h - Algae [mg/l]	240 mg/l
LC50 96 h - Fish [mg/l]	84 mg/l

12.2. Persistence and degradability

Assessment : No ecological damage caused by this product.

12.3. Bioaccumulative potential

Assessment : No data available.

12.4. Mobility in soil

Assessment : No data available.

Assessment : No ecological damage caused by this product.

12.5. Results of PBT and vPvB assessment

Assessment : Not classified as PBT or vPvB.

12.6. Endocrine disrupting properties

Assessment :

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 : Contains greenhouse gas(es).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Contact supplier if guidance is required.

Do not discharge into areas where there is a risk of forming an explosive mixture with air.

Waste gas should be flared through a suitable burner with flash back arrestor.

Must not be discharged to atmosphere.

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.org for more guidance on suitable disposal methods.

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. : 3300

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14.2. UN proper shipping name : ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE

: Ethylene oxide and carbon dioxide mixture Transport by air (ICAO-TI / IATA-DGR)

: ETHYLENE OXIDE AND CARBON DIOXIDE MIXTURE Transport by sea (IMDG)

14.3. Transport hazard class(es)

Labelling

Transport by road/rail (ADR/RID)

2.3: Toxic gases.

Transport by road/rail (ADR/RID)

: 2 Classification code : 2TF Hazard identification number : 263

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

2.1: Flammable gases.

carriage: Passage forbidden through tunnels of category D and E

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

Class / Div. (Sub. risk(s)) : 2.3 (2.1)

Transport by sea (IMDG)

Class / Div. (Sub. risk(s)) : 2.3 (2.1) Emergency Schedule (EmS) - Fire F-D Emergency Schedule (EmS) - Spillage : S-U

14.4. Packing group

Transport by road/rail (ADR/RID) : Not applicable. Transport by air (ICAO-TI / IATA-DGR) : Not applicable. Transport by sea (IMDG) Not applicable.

14.5. Environmental hazards

Transport by road/rail (ADR/RID) : None. Transport by air (ICAO-TI / IATA-DGR) : None. Transport by sea (IMDG) · None

14.6. Special precautions for user

Packing Instruction(s)

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Transport by road/rail (ADR/RID) : P200.

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

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

: Avoid transport on vehicles where the load space is not separated from the driver's Special transport precautions

compartment.

Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in

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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.

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SECTION 15: Regulatory information

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

EU-Regulations

Restrictions on use : Restricted to professional users (Annex XVII REACH).

Contains no substance on the REACH candidate list.

Other information, restriction and prohibition

regulations

: Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Seveso Directive: 2012/18/EU (Seveso III) : Covered

National regulations

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

15.2. Chemical safety assessment

A CSA does not need to be carried out for this product.

SECTION 16: Other information

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

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 - European 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.

Training advice : Ensure operators understand the flammability hazard.

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

Further information : Classification using data from databases maintained by the European Industrial Gases

Association (EIGA). Data is maintained in EIGA doc 169: 'Classification and Labelling

Guide', downloadable at : http://www.eiga.eu.

Classification in accordance with the procedures and calculation methods of Regulation

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(EC) 1272/2008 (CLP).

Full text of H- and EUH-statements	
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

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Flam. Gas 1A	Flammable gases, Category 1A
Flam. Gas 1A - Chem. Unst. Gas A	Flammable gases, Category 1A, Chemically unstable gas A
H220	Extremely flammable gas.
H230	May react explosively even in the absence of air.
H280	Contains gas under pressure; may explode if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
Muta. 1B	Germ cell mutagenicity, Category 1B
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

DISCLAIMER OF LIABILITY

 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.

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