

## Nitric oxide

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

Reference number: EIGA088-ALBNL Issue date: 1-7-2017 Revision date: 1-1-2022 Supersedes version of: 1-7-2017 Version: 5.0

## Danger



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

#### 1.1. Product identifier

**REACH registration No** 

Trade name : Nitric oxide
SDS no : EIGA088-ALBNL
Other means of identification : Nitric oxide

CAS-No. : 10102-43-9 EC-No. : 233-271-0 EC Index-No. : ---

: 01-2120766630-54

Chemical formula : NO

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

Relevant identified uses : Test gas/Calibration gas.

Chemical reaction / Synthesis. Laboratory and Process control.

Use for manufacture of electronic/photovoltaic components. Industrial use. 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

#### THE NETHERLANDS:

AIR LIQUIDE BV De Witbogt 1 5652 AG Eindhoven the Netherlands-Nederland

#### **BELGIUM:**

L'AIR LIQUIDE BELGE S.A./N.V. Avenue de Bourget / Bourgetlaan 44 1130 Bruxelles-Brussel Belgium-Belgique-België

#### LUXEMBURG:

L'AIR LIQUIDE LUXEMBOURG S.A. ZONE P.E.D.-B.P.20 L-4801 RODANGE Luxemburg

infosafetydatasheet.albv@airliquide.com www.airliquide-benelux.com

#### 1.4. Emergency telephone number

Emergency telephone number : NL: +31 (0)40 250 35 03 / BE: +32 (0)2 431 72 00 / LUX: +352 50 62 63 1



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Country	Organisation/Company	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Luxembourg	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	Free telephone number with a 24/7 access. Experts answer all urgency questions on dangerous products in French, or German
Netherlands	Nationaal Vergiftigingen Informatie Centrum	Huispostnummer B.00.118 Postbus 85500 3508 GA Utrecht	+31 88 755 80 00	Only for the purpose of informing medical personnel in cases of acute intoxications

## **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 : Compressed gas	H280
Health hazards	Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
	Serious eye damage/eye irritation, Category 1	H318
	Acute toxicity (inhalation:gas) Category 1	H330

#### 2.2. Label elements

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

Hazard pictograms (CLP)





GHS04



GHS05



Signal word (CLP) : Danger

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.

H270 - May cause or intensify fire; oxidiser.

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

H330 - Fatal if inhaled.

EUH071 - Corrosive to the respiratory tract.

Precautionary statements (CLP)

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

P260 - Do not breathe gas, vapours.

 $\ensuremath{\mathsf{P244}}$  - Keep valves and fittings free from oil and grease.

P220 - Keep away from clothing and other combustible materials.



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- Response : P303+P361+P353+P315 - IF ON SKIN : (or hair) Remove/Take off immediately all

contaminated clothing. Rinse skin with water/shower. Get immediate medical advice /

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.

P370+P376 - In case of fire: Stop leak if safe to do so.

P405 - Store locked up. - Storage

P403 - Store in a well-ventilated place.

2.3. Other hazards

Not classified as PBT or vPvB.

The substance/mixture has no endocrine disrupting properties.

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nitric oxide	CAS-No.: 10102-43-9 EC-No.: 233-271-0 EC Index-No.: REACH registration No: 01-2120766630- 54	100	Ox. Gas 1, H270 Press. Gas (Comp.), H280 Skin Corr. 1B, H314 Eye Dam. 1, H318 Acute Tox. 1 (Inhalation:gas), H330

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

3.2. Mixtures Not established

### **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.

- 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

Prolonged exposure to small concentrations may result in pulmonary oedema.

May cause severe chemical burns to skin and cornea. Suitable first-aid treatment should be

immediately available. Seek medical advice before using product.

Delayed adverse effects possible.

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.



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## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

- 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.

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

Specific hazards : Supports combustion.

Exposure to fire may cause containers to rupture/explode.

Hazardous combustion products : Nitric oxide/nitrogen dioxide.

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.

Ensure adequate air ventilation. Eliminate ignition sources.

Stav upwind.

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

For emergency responders : Wear self-contained breathing apparatus when entering area unless atmosphere is proved

to be safe.

Use chemically protective clothing.

Monitor concentration of released product.

See section 5.3 of the SDS for more information.

6.2. Environmental precautions

Reduce vapour with fog or fine water spray.

Try to stop release.

#### 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.

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### SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

Safe handling of the gas receptacle

Safe use of the product

: Do not breathe gas.

Avoid release of product into work area.

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

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

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.

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.

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.

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.

Avoid suck back of water, acid and alkalis.

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.

Segregate from flammable gases and other flammable materials in store.

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

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## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

Nitric oxide (10102-43-9)		
EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	Nitrogen monoxide	
IOEL TWA	2,5 mg/m³	
IOEL TWA [ppm]	2 ppm	
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164	
Belgium - Occupational Exposure Limits		
Local name	Azote (monoxyde d') # Stikstofmonoxide	
OEL TWA	2,5 mg/m³	
OEL TWA [ppm]	2 ppm	
Regulatory reference	Koninklijk besluit/Arrêté royal 19/11/2020	
Luxembourg - Occupational Exposure Limits		
Local name	Monoxyde d'azote	
OEL TWA	2,5 mg/m³	
OEL TWA [ppm]	2 ppm	
Remark	Dans les mines souterraines et tunnels en percement cette valeur limite est applicable à partir du 22 août 2023	
Regulatory reference	Mémorial A Nº 684 de 2018 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail	
Netherlands - Occupational Exposure Limits		
Local name	Stikstofmonoxide	
TGG-8u (OEL TWA)	2,5 mg/m³	
Regulatory reference	Arbeidsomstandighedenregeling 2021	

DNEL (Derived-No Effect Level) : None established.

PNEC (Predicted No-Effect Concentration) : None established.

## 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.



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#### 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

· Eye/face protection

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

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

Wear chemically resistant protective 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. 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
 Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full

face mask.

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

device.

Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be

used in oxygen-deficient atmospheres.

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.

#### **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 : Brownish gas.

Odour : Pungent. Poor warning properties at low concentrations.

Odour threshold is subjective and inadequate to warn of overexposure.

pH : Not applicable for gases and gas mixtures.

Melting point / Freezing point : -164 °C Boiling point : -152 °C : -152 °C

Flash point : Not applicable for gases and gas mixtures.

Non flammable. Flammability **Explosive limits** Non flammable Lower explosive limit (LEL) · Not available Upper explosive limit (UEL) : Not applicable. Vapour pressure [20°C] Not applicable. Vapour pressure [50°C] Not applicable. Density : Not applicable Vapour density Not applicable.

Relative density, liquid (water=1) : Not applicable for gases and gas mixtures.

Relative density, gas (air=1) :

Water solubility : 46 - 57,4 mg/l

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

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Auto-ignition temperature : Non flammable.

Decomposition temperature : Not applicable.

Viscosity, kinematic : No reliable data available.

Particle characteristics : Not applicable

#### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Oxidising properties : Oxidiser.

- Coefficient of oxygen equivalency (Ci) : 0,3

Critical temperature [°C] : -93 °C

9.2.2. Other safety characteristics

Molar mass : 30 g/mol Other data : None.

## **SECTION 10: Stability and reactivity**

10.1. Reactivity

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

10.2. Chemical stability

Decomposes at room temperature to other nitrogen oxides and nitrogen. Oxidises in air to

form nitrogen dioxide which is extremely reactive.

10.3. Possibility of hazardous reactions

Violently oxidises organic material.

10.4. Conditions to avoid

High temperature.

Avoid moisture in installation systems.

10.5. Incompatible materials

Air.

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 : Delayed fatal pulmonary oedema possible.

Fatal if inhaled.

LC50 Inhalation - Rat [ppm] 57,5 ppm/4h

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

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.

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

: Severe corrosion to the respiratory tract at high concentrations. STOT-single exposure

Target organ(s) Eyes.

Respiratory system.

Severe corrosion to the respiratory tract at high concentrations. STOT-repeated exposure

Respiratory system. Target organ(s)

: Not applicable for gases and gas mixtures. **Aspiration hazard** 

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

Assessment : No ecological damage caused by this product

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

#### 12.2. Persistence and degradability

Assessment : Not applicable for inorganic products.

#### 12.3. Bioaccumulative potential

No additional information 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

: Not classified as PBT or vPvB. Assessment

#### 12.6. Endocrine disrupting properties

No additional information available

## 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.

Must not be discharged to atmosphere.

Gas may be scrubbed in alkaline solution under controlled conditions to avoid violent

reaction.

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

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#### 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. : 1660

14.2. UN proper shipping name

Transport by road/rail (ADR/RID) : NITRIC OXIDE, COMPRESSED

Transport by air (ICAO-TI / IATA-DGR) : Nitric oxide, compressed

Transport by sea (IMDG) : NITRIC OXIDE, COMPRESSED

14.3. Transport hazard class(es)

Labelling







2.3: Toxic gases.

5.1 : Oxidizing substances.8 : Corrosive substances.

Transport by road/rail (ADR/RID)

Class : 2 Classification code : 1TOC

Tunnel Restriction : D - 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-W

14.4. Packing group

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

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)

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



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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.
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 has been carried out.

## **SECTION 16: Other information**

Indication of changes : Revised safety data sheet in accordance with commission regulation (EU) No 453/2010.

Section	Changed item	Change	Comments
	UN-No. (RID)	Added	
	Reference number	Modified	
	Supersedes	Modified	
	Revision date	Modified	
	Relevant identified uses	Modified	
	Safe use of the product	Modified	
2.3	Other hazards which do not result in classification	Modified	
8	Regulatory reference	Added	
8	Regulatory reference	Added	
8	Regulatory reference	Added	
8	Regulatory reference	Added	
8.1	Remark	Added	
8.1	Local name	Added	
8.1	Local name	Added	
8.1	Local name	Added	
8.1	Local name	Added	



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OEL TWA [ppm]	
- Withing	Added
DEL TWA	Added
TGG-8u (OEL TWA)	Added
OEL TWA [ppm]	Added
OEL TWA	Added
DEL TWA [ppm]	Added
DEL TWA	Added
ONEL/DMEL (additional information)	Modified
PNEC (additional information)	Modified
Respiratory protection	Modified
Solubility in water	Modified
Relative density	Modified
Flash point	Removed
ATE CLP (gases)	Modified
Other information	Modified
Danger labels (RID)	Added
	GG-8u (OEL TWA)  OEL TWA [ppm]  OEL TWA  DEL TWA  DEL TWA  DEL TWA  DNEL/DMEL (additional information)  PNEC (additional information)  Respiratory protection  Solubility in water  Relative density  Flash point  ATE CLP (gases)  Other information

Abbreviations and acronyms

Training advice

: 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

: Users of breathing apparatus must be trained.

Ensure operators understand the toxicity hazard.

Further information : 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. 1 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 1
EUH071	Corrosive to the respiratory tract.



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Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H270	May cause or intensify fire; oxidiser.
H280	Contains gas under pressure; may explode if heated.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
Ox. Gas 1	Oxidising Gases, Category 1
Press. Gas (Comp.)	Gases under pressure : Compressed gas
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B

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 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**