Acetylene

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2015/830
Reference number: EIGA001
Issue date: 25/01/2016 Revision date: 11/08/2025 Supersedes version of: 15/10/2024 Version: 3.0

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

1.1. Product identifier

Product form	:	Substance
Name	:	Acetylene
EC Index-No.	:	601-015-00-0
EC-No.	:	200-816-9
CAS-No.	:	74-86-2
REACH registration No.	:	01-2119457406-36, UK-01-3758468859-4-0001
Product code	:	000010030152
Formula	:	C2H2

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

1.2.1. Relevant identified uses

Relevant identified uses	:	See the list of identified uses and exposure scenarios in the annex of the safety data sheet. Consumer use. Perform risk assessment prior to use.
Use of the substance/mixture	:	Metal coating Formulation of mixtures with gas in pressure receptacles. Lubrication of moulds for the manufacture of glass bottles. Using gas as feedstock in chemical processes. Using gas alone or in mixtures for the calibration of analysis equipment. Electronic component manufacture Industrial and professional. Perform risk assessment prior to use. Fuel gas for welding, cutting, heating, brazing and soldering applications. Fuels

1.2.2. Uses advised against

Uses advised against	:	None.
Restrictions on use	:	Consumer use.

1.3. Details of the supplier of the safety data sheet

BOC Ltd. (UK)
Priestley Road, Worsley
M28 2UT Manchester
Great Britain
T 0800 111 333
ReachSDS@boc.com

1.4. Emergency telephone number

Emergency number	:	0800 111 333

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, Chemically unstable gas A	H220;H230
	Gases under pressure : Dissolved gas	H280

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS02 GHS04

Signal word (CLP) : Danger

Hazard statements (CLP) : H220 - Extremely flammable gas.
H230 - May react explosively even in the absence of air.
H280 - Contains gas under pressure; may explode if heated.

Precautionary statements (CLP)

- Prevention : P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Response : P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381 - In case of leakage, eliminate all ignition sources.
- Storage : P403 - Store in a well-ventilated place.

Supplemental information : Dispose of cylinder via gas supplier only. Cylinder contains a porous material which in some cases contains asbestos fibres.

2.3. Other hazards

Other hazards : Asphyxiant in high concentrations. These high concentrations are within the flammability range. Not classified as PBT or vPvB. Not classified as PMT or vPvM . The substance/mixture has no endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Substance

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP] ATE, EUH-statements, M-Factors
Acetylene	CAS-No.: 74-86-2 EC-No.: 200-816-9 EC Index-No.: 601-015-00-0 REACH-no: 01-2119457406-36, UK-01-3758468859-4-0001	100	Flam. Gas 1A - Chem. Unst. Gas A, H220;H230 Press. Gas (Diss.), 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.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after 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.

First-aid measures after skin contact : Adverse effects not expected from this product.

First-aid measures after eye contact : Adverse effects not expected from this product.

First-aid measures after ingestion : Ingestion is not considered a potential route of exposure.

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

Most important symptoms and effects, both acute and delayed

See section 11.
In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.

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

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Water spray or fog. Carbon dioxide. Shutting off the source of the gas is the preferred method of control. Be aware of the risk of formation of static electricity with the use of CO_2 extinguishers. Do not use them in places where a flammable atmosphere may be present.

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

5.2. Special hazards arising from the substance or mixture

Reactivity in case of fire : No reactivity hazard other than the effects described in sub-sections below.

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

Hazardous combustion products : Carbon monoxide.

5.3. Advice for firefighters

Specific methods : Continue water spray from protected position until container stays cool.
Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
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 : In confined space use self-contained breathing apparatus.
Standard protective clothing and equipment (Self Contained Breathing Apparatus) for fire fighters.
Standard EN 469 - Protective clothing for firefighters. Standard - EN 659: Protective gloves for firefighters. EN 15090 Footwear for firefighters. EN 443 Helmets for fire fighting in buildings and other structures.
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

6.1.1. For non-emergency personnel

Emergency procedures : Act in accordance with local emergency plan. Try to stop release. Evacuate area. Eliminate ignition sources. Ensure adequate air ventilation. Stay upwind. See section 8 of the SDS for more information on personal protective equipment.

6.1.2. For emergency responders

Emergency procedures : 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.

6.3. Methods and material for containment and cleaning up

Methods and material for containment and cleaning up : Ventilate area.

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 : Take precautionary measures against static discharge.
Keep away from ignition sources (including static discharges).
Avoid contact with pure copper, mercury, silver and brass with greater than 65% copper.
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
Purge air from system before introducing gas.
Do not smoke while handling product.
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.
Assess the risk of potentially explosive atmospheres and the need for explosion-proof equipment.
Solvent may accumulate in piping systems. Prior to maintenance activities, perform a risk assessment based on the solvent in use. In case of DMF, take into account the conditions of its restrictions.
Consider the use of only non-sparking tools.
The product must be handled in accordance with good industrial hygiene and safety procedures.
Operating pressure in piping should be limited to 1.5 bar (gauge) or less due to more stringent national regulations (with maximum diameter DN25).
Consider the use of flash back arrestors.
For more guidance on safe use, refer to EIGA Doc.212 “Acetylene installations at customer premises", downloadable at http://www.eiga.eu and consult your supplier.
Consider pressure relief device(s) in gas installations.
Do not breathe gas.
Avoid release of product into work area.
Ensure equipment is adequately earthed.

Safe handling of the gas receptacle	:	Suck back of water into the container must be prevented. Open valve slowly to avoid pressure shock. 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. Do not remove or deface labels provided by the supplier for the identification of the content of the container. 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. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment. Keep container valve outlets clean and free from contaminants particularly oil and water. 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.

7.2. Conditions for safe storage, including any incompatibilities

Conditions for safe storage, including any incompatibilities	:	Keep container below 50°C in a well ventilated place. Segregate from oxidant gases and other oxidants in store. Stored containers should be periodically checked for general condition and leakage. Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent them from falling over. Container valve guards or caps, when provided, should be in place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from combustible materials. 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

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Acetylene (74-86-2)	
DNEL/DMEL (additional information)	
Additional information	None established.
PNEC (additional information)	
Additional information	None established.

8.1.5. Control banding

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:
Provide adequate general and local exhaust ventilation. Gas detectors should be used when toxic gases may be released. Product to be handled in a closed system. Systems under pressure should be regularly checked for leakages. Ensure exposure is below occupational exposure limits (where available). Consider the use of a work permit system e.g. for maintenance activities.

Personal protection equipment

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.
Personal protective equipment symbol(s):

Eye and face protection

Eye protection:
Wear safety glasses with side shields. Standard EN 166 - Personal eye-protection - specifications

Skin protection

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

Respiratory protection

Respiratory protection:
Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres. Self contained breathing apparatus is recommended, where unknown exposure may be expected, e.g. during maintenance activities on installation systems. 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.

Thermal hazards

Thermal hazard protection:
Wear goggles with suitable filter lenses when use is cutting/welding.

Environmental exposure controls

Environmental exposure controls:
Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.
Other information:
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. Wear safety shoes while handling containers. Standard EN ISO 20345 - Personal protective equipment - Safety footwear.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance		
Physical state	:	Gas
Molecular mass	:	26 g/mol
Form	:	Dissolved gas
Colour	:	Colourless.
Odour	:	Poor warning properties at low concentrations. Garlic like.
Odour threshold	:	Odour threshold is subjective and inadequate to warn of overexposure.

pH	:	Not applicable for gases and gas mixtures.
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	-80.8 °C
Freezing point	:	No data available
Boiling point	:	-84 °C
Flash point	:	Not applicable for gases and gas mixtures.
Critical temperature	:	35 °C
Auto-ignition temperature	:	305 °C
Decomposition temperature	:	Not applicable.
Flammability (solid, gas)	:	Extremely flammable gas.
Vapour pressure	:	44 bar(a)
Vapour pressure at 50°C	:	Not applicable.
Critical pressure	:	6138 kPa
Relative vapour density at 20°C	:	0.9
Relative density	:	Not applicable.
Density	:	0.38 g/cm³ 25 °C
Relative gas density	:	0.9
Solubility in water	:	1185 mg/l
Partition coefficient n-octanol/water (Log Pow)	:	Not applicable for gas mixtures.
Partition coefficient n-octanol/water (Log Kow)	:	0.37
Viscosity, kinematic	:	No reliable data available.
Viscosity, dynamic	:	0.011 mPa·s No reliable data available.
Explosive properties	:	No data available
Oxidising properties	:	No oxidising properties.
Lower explosive limit (LEL)	:	2.3 vol %
Upper explosive limit (UEL)	:	100 vol %
Particle characteristics	:	Not applicable for gases and gas mixtures. Nanoforms are not relevant for gases and gas mixtures.

9.2. Other information

Gas group	:	Press. Gas (Diss.)
Additional information	:	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

Dissolved in a solvent supported in a porous mass. Stable under recommended handling and storage conditions (see section 7). May react explosively even in the absence of air.

10.3. Possibility of hazardous reactions

May decompose violently at high temperature and/or pressure or in the presence of a catalyst. Can form explosive mixture with air. May react violently with oxidants. May react explosively even in the absence of air.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid moisture in installation systems. High temperature. High pressure.

10.5. Incompatible materials

Forms explosive acetylides with copper, silver and mercury. Do not use alloys containing more than 65% copper. Air, Oxidisers. For additional information on compatibility refer to ISO 11114. Do not use alloys containing more than 43% silver.

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 toxicological effects

Acute toxicity : There are no data on oral and dermal toxicity (studies are not technically feasible as the substance is a gas at room temperature.
Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : No known effects from this product.
pH: Not applicable for gases and gas mixtures.
Serious eye damage/irritation : No known effects from this product.
pH: Not applicable for gases and gas mixtures.
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.
Reproductive toxicity : Not classified
Toxic for reproduction : Fertility : No known effects from this product.
Toxic for reproduction : unborn child : No known effects from this product.
STOT-single exposure : No known effects from this product.
STOT-repeated exposure : No known effects from this product.
Aspiration hazard : Not applicable for gases and gas mixtures.

Acetylene (74-86-2)	
Viscosity, kinematic	No reliable data available.
Hydrocarbon	Yes

Other information : The substance/mixture has no endocrine disrupting properties.

SECTION 12: Ecological information

12.1. Toxicity

Assessment : Classification criteria are not met.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Not classified
Not rapidly degradable

Acetylene (74-86-2)	
LC50 96 h - Fish [mg/l]	545 mg/l
EC50 48h - Daphnia magna [mg/l]	242 mg/l
EC50 72h - Algae [mg/l]	57 mg/l

12.2. Persistence and degradability

Acetylene (74-86-2)	
Assessment	Will rapidly degrade by indirect photolysis in air. Will not undergo hydrolysis.

12.3. Bioaccumulative potential

Acetylene (74-86-2)	
Partition coefficient n-octanol/water (Log Pow)	Not applicable for gas mixtures.
Partition coefficient n-octanol/water (Log Kow)	0.37
Assessment	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). See section 9.

12.4. Mobility in soil

Acetylene (74-86-2)	
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. Other adverse effects

Other adverse effects : Not classified as PMT or vPvM.
Assessment : The substance/mixture has no endocrine disrupting properties.
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

Waste treatment methods : Contact supplier if guidance is required. Do not discharge into any place where its accumulation could be dangerous. 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. Ensure that the emission levels from local regulations or operating permits are not exceeded. Return unused product in original container to supplier. 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.

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

Dispose of cylinder via gas supplier only. Cylinder contains a porous material which in some cases contains asbestos fibres and is saturated with a solvent (acetone or dimethylformamide).
External treatment and disposal of waste should comply with applicable local and/or national regulations.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1001	UN 1001	UN 1001	UN 1001	UN 1001
14.2. UN proper shipping name				
ACETYLENE, DISSOLVED	ACETYLENE, DISSOLVED	Acetylene, dissolved	ACETYLENE, DISSOLVED	ACETYLENE, DISSOLVED
Transport document description				
UN 1001 ACETYLENE, DISSOLVED, 2.1, (B/D)	UN 1001 ACETYLENE, DISSOLVED, 2.1	UN 1001 Acetylene, dissolved, 2.1	UN 1001 ACETYLENE, DISSOLVED, 2.1	UN 1001 ACETYLENE, DISSOLVED, 2.1
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1

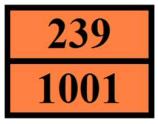
ADR	IMDG	IATA	ADN	RID
				
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

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.

Overland transport

Classification code (ADR) : 4F
Special provisions (ADR) : 662
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P200
Mixed packing provisions (ADR) : MP9
Tank code (ADR) : PxBN(M)
Tank special provisions (ADR) : TU17, TA4, TT9
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV10, CV36
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 239
Orange plates :



Tunnel restriction code (ADR) : B/D
EAC code : 2SE

Transport by sea

Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P200
EmS-No. (Fire) : F-D
EmS-No. (Spillage) : S-U
Stowage category (IMDG) : D
Stowage and handling (IMDG) : SW1, SW2
Segregation (IMDG) : SG46
Properties and observations (IMDG) : Flammable gas with slight odour. Explosive limits: 2.1% to 80%. Lighter than air (0.907). Rough handling and exposure to local heating should be avoided, since these conditions may result in delayed explosion. Empty cylinders should be carried with the same precautions as filled cylinders.

Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	FORBIDDEN
PCA limited quantity max net quantity (IATA)	:	FORBIDDEN
PCA packing instructions (IATA)	:	FORBIDDEN
PCA max net quantity (IATA)	:	FORBIDDEN
CAO packing instructions (IATA)	:	200
CAO max net quantity (IATA)	:	15kg
Special provisions (IATA)	:	A1
ERG code (IATA)	:	10L

Inland waterway transport

Classification code (ADN)	:	4F
Special provisions (ADN)	:	662
Limited quantities (ADN)	:	0
Excepted quantities (ADN)	:	E0
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	1

Rail transport

Classification code (RID)	:	4F
Special provisions (RID)	:	662
Limited quantities (RID)	:	0
Excepted quantities (RID)	:	E0
Packing instructions (RID)	:	P200
Mixed packing provisions (RID)	:	MP9
Tank codes for RID tanks (RID)	:	PxBN(M)
Special provisions for RID tanks (RID)	:	TU17, TU38, TE22, TA4, TT9
Transport category (RID)	:	2
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW9, CW10, CW36
Colis express (express parcels) (RID)	:	CE2
Hazard identification number (RID)	:	239

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

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
40.	Acetylene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

VOC Directive (2004/42)

Restrictions on use : None.

Seveso Directive (Disaster Risk Reduction)

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

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Ensure all national/local regulations are observed.
Safety data sheet in accordance with commission regulation (EU) No 2020/878.
Council Directive 89/391/EEC on the introduction of measures to encourage improvements in the safety and health of workers at work
Directive 2016/425/EEC on personal protective equipment
Directive 2014/34/EU on equipment and protective systems intended for use in potentially explosive atmospheres (ATEX)
Only products that comply with the food regulations (EC) No. 1333/2008 and (EU) No. 231/2012 and are labelled as such may be used as food additives.
This Safety Data Sheet has been produced to comply with Regulation (EU) 2015/830.

United Kingdom

British National Regulations : Dangerous Substances and Explosive Atmospheres Regulations (DSEAR 2002 No. 2776).
Management of Health and Safety at Work Regulations (1999 No. 3242).
The Regulatory Reform (Fire Safety) Order 2005 (2005 No. 1541).
Control of Substances Hazardous to Health Regulations (COSHH, 2002 No. 2677).
Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations (EPS, 1996 No. 192).
Provision and Use of Work Equipment Regulations (PUWER, 1998 No. 2306).
Personal Protective Equipment Regulations (1992 No. 2966).
Control of Major Accident Hazards Regulations (COMAH, 2015 No. 483).
Chemical Hazards Information and Packaging for Supply (CHIP, 1994 No. 3247).
Pressure Systems Safety Regulations (PSSR, 2000 No. 128).
Only products that comply with the food regulations (EC) No. 1333/2008 and (EU) No. 231/2012 and are labelled as such may be used as food additives.

15.2. Chemical safety assessment

A CSA has been carried out.

SECTION 16: Other information

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

Indication of changes	
Changed item	**Change** **Comments**
1.1-----	Modified
1.3 > Company	Modified

Indication of changes	
Changed item	**Change** **Comments**
2.3 > Other hazards	Modified
5.1 > Suitable extinguishing media	Modified
9.1 > Explosive limits	Modified
9.2.1 > Explosive properties	Removed
9.2.2 > Gas group	Added
10.3 > Possibility of hazardous reactions	Modified
10.4 > Conditions to avoid	Modified
10.5 > Incompatible materials	Modified
12.2 > Persistence and degradability	Modified
12.3 > Bioaccumulative potential	Modified
12.4 > Mobility in soil	Modified
12.7 > Other adverse effects	Modified
13.1 > Waste treatment methods	Modified
15.1.1 > EU-Regulations > REACH Annex XVII (Restriction List) > MERGEFIELD NameTranslations#tablefield * MERGEFORMAT«NameTranslations#tablefield» > Applicable on	Modified
15.1.1 > EU-Regulations > REACH Candidate List	Modified
16 > Indication of changes	Modified
16 > Abbreviations and acronyms	Modified

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	ATE - Acute Toxicity Estimate
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAO	Cargo Aircraft only / Cargo Aircraft only
CAS-No.	Chemical Abstract Service number
CLP	CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	CSA - Chemical Safety Assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC	European Inventory of Existing Commercial Chemical Substances
ED	Endocrine disruptor
EINECS	EINECS - European Inventory of Existing Commercial Chemical Substances
EN	European Standard

Abbreviations and acronyms:	
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PCA	Passenger and Cargo Aircraft / Passenger and Cargo Aircraft
PNEC	Predicted No-Effect Concentration
PPE	PPE - Personal Protection Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
RMM	RMM - Risk Management Measures
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
STOT-RE	Specific Target Organ Toxicity-Repeated Exposure
STOT-SE	Specific Target Organ Toxicity-Single Exposure
UFI	Unique Formula Identifier
UN	UN - United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Training advice : Ensure operators understand the flammability hazard.

Other 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:	
Flam. Gas 1A - Chem. Unst. Gas A	Flammable gases, Category 1A, Chemically unstable gas A
Press. Gas (Diss.)	Gases under pressure : Dissolved gas

Full text of H- and EUH-statements:	
H220	Extremely flammable gas.
H230	May react explosively even in the absence of air.
H280	Contains gas under pressure; may explode if heated.

The classification complies with : ATP 12

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.

Safety Data Sheet (SDS), EU GB

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.

End of document