CR2032 Coin Cell

Safety Data Sheet

according to Regulation (EU) 2020/878
Issue date: 27/03/2023 Version: 1.0

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

1.1. Product identifier

Product form : Article
Trade name : CR2032 Coin Cell
Product code : 40069, 20492, 20492-95

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

1.2.1. Relevant identified uses

Main use category : Professional uses: Public domain (administration, education, entertainment, services, craftsmen),Consumer uses: Private households (= general public = consumers)
Use of the substance/mixture : Batteries and accumulators

1.2.2. Uses advised against

Restrictions on use : No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
ITW Global Tire Repair Europe GmbH
Carl-Benz Str. 10, 88696 Owingen, Germany
Tel 0049 7551-9200-100
Email: Comments@itwgtr.com

1.4. Emergency telephone number

Emergency number : Chemtel: +1(813)248-0585 (International);
England, Medical Toxicology Information Services: +442071880100;
Wales & Ireland, National Poisons Information Service: 0844 892 0111;
Scotland, National Poisons Information Centre: 0870 600 6266

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Other information : This product is not classified as hazardous but contains hazardous components.
Risk of exposure only occurs if the battery cell is mechanically, thermally, or electrically abused and the enclosure is compromised. If this occurs, exposure to electrolyte solutions contained in the battery cell may occur by inhalation, eye contact, skin contact, or ingestion.
The batteries described in this Safety Data Sheet are sealed units which are not hazardous when used according to the Manufacturer's recommendations.

Component	
1,2-dimethoxyethane (110-71-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component	
1,2-dimethoxyethane(110-71-4)	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Manganese dioxide	CAS-No.: 1313-13-9 EC-No.: 215-202-6 EC Index-No.: 025-001-00-3	≥ 10 – ≤ 60	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373
Graphite substance with national workplace exposure limit(s) (IE)	CAS-No.: 7782-42-5 EC-No.: 231-955-3	≥ 1 – ≤ 5	Not classified
Lithium perchlorate	CAS-No.: 7791-03-9 EC-No.: 232-237-2	≥ 1 – ≤ 5	Ox. Sol. 1, H271 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT RE 2, H373
Lithium	CAS-No.: 7439-93-2 EC-No.: 231-102-5 EC Index-No.: 003-001-00-4	≥ 1 – ≤ 5	Water-react. 1, H260 Skin Corr. 1B, H314
Propylene carbonate	CAS-No.: 108-32-7 EC-No.: 203-572-1 EC Index-No.: 607-194-00-1	≥ 1 – ≤ 5	Eye Irrit. 2, H319
1,2-dimethoxyethane substance listed as REACH Candidate (1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME))	CAS-No.: 110-71-4 EC-No.: 203-794-9 EC Index-No.: 603-031-00-3	< 3	Flam. Liq. 2, H225 Repr. 1B, H360FD Acute Tox. 4 (Inhalation), H332

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Risk of exposure only occurs in case of abuse (mechanical, thermal, electrical) leading to activation of safety valves and/or rupture of the battery containers. If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Take off contaminated clothing. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER/doctor.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Contact ophthalmologist immediately.

First-aid measures after ingestion : Rinse mouth out with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Risk of exposure only occurs if the battery cell is mechanically, thermally, or electrically abused and the enclosure is compromised. If this occurs, exposure to electrolyte solutions contained in the battery cell may occur by inhalation, eye contact, skin contact, or ingestion.

Symptoms/effects after inhalation : Harmful if inhaled. Vapours or mists from a ruptured battery may cause respiratory irritation. May cause shortness of breath, tightness of the chest, a sore throat and cough.

Symptoms/effects after skin contact : Skin contact with a ruptured battery can cause skin irritation. Redness. Itching. Swelling. Burns.

Symptoms/effects after eye contact : Eye contact with the contents of a ruptured battery can cause severe irritation to the eye. Redness. Lacrimation. Itching. Blurred vision. Burns. Can cause blindness.

Symptoms/effects after ingestion : Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Abdominal pain. Swallowing this material will result in serious health hazard, potentially leading to collapse and death.

Chronic symptoms : May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

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

Treat symptomatically. Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Water spray. Sand. ABC-powder. Use extinguishing agent suitable for surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Burning produces stinking and toxic fumes. In case of fire and/or explosion do not breathe fumes.

Reactivity in case of fire : Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Metal oxides.

5.3. Advice for firefighters

Firefighting instructions : Evacuate the danger area. Move containers from fire area if it can be done without personal risk. Exercise caution when fighting any chemical fire. Fight fire with normal precautions from a reasonable distance. Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all contact with skin, eyes, or clothing. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Evacuate unnecessary personnel. Ventilate spillage area. Avoid breathing vapours, fume. Do not get in eyes, on skin, or on clothing. Do not touch or walk on the spilled product. No action shall be taken without appropriate training or involving any personal risk.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Evacuate unnecessary personnel.

6.2. Environmental precautions

Avoid release to the environment. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	:	Stop leak without risks if possible.
Methods for cleaning up	:	Move containers from spill area. Mechanically recover the product. Clean up any spills as soon as possible, using an absorbent material to collect it. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Prevent entry to sewers and public waters.
Other information	:	Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Ensure good ventilation of the work station. Provide local exhaust or general room ventilation. Wear personal protective equipment. Avoid contact with skin and eyes. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Take precautionary measures against static discharge. Do not short circuit, puncture, incinerate, crush, immerse in water, or expose to temperatures outside the temperature range stipulated by the manufacturer for the product. If this occurs, electrolyte leakage, or battery vent/explosion/fire may also occur depending on the circumstances.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store in a well-ventilated place. Keep cool. Store in a dry place. Keep away from food, drink and animal feedingstuffs. Proper grounding procedures to avoid static electricity should be followed. Protect from moisture. Protect from freezing. Store in accordance with local, regional, national or international regulation.
Incompatible products	:	Strong oxidizing agents. Strong reducing agents. Strong acids. Water.
Incompatible materials	:	Direct sunlight. Heat sources.
Heat and ignition sources	:	Do not expose the battery to high temperatures or fire.
Storage area	:	Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Graphite (7782-42-5)	
Ireland - Occupational Exposure Limits	
Local name	Graphite (all forms except fibres)
OEL TWA [1]	2 mg/m³ R (Respirable Fraction)
Regulatory reference	Chemical Agents Code of Practice 2021

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Refer to all applicable national, international and local regulations or provisions. Workplace atmospheres. Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy. Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide local exhaust or general room ventilation. Handle in accordance with good industrial hygiene and safety procedures. Avoid all unnecessary exposure. Ensure exposure is below occupational exposure limits (where available).

8.2.2. Personal protection equipment

Personal protective equipment:
Wear recommended personal protective equipment. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment.

8.2.2.1. Eye and face protection

Eye protection:
No special eye protection equipment recommended under normal conditions of use

8.2.2.2. Skin protection

Skin and body protection:
No special clothing/skin protection equipment is recommended under normal conditions of use

Hand protection:
Not required for normal conditions of use. In case of repeated or prolonged contact wear gloves. ISO 374-1. Recommended materials. Butyl rubber. Nitrile rubber. Natural rubber. Neoprene. Viton

8.2.2.3. Respiratory protection

Respiratory protection:
No respiratory protection needed under normal use conditions

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	According to product specification.
Appearance	:	batteries.
Odour	:	odourless.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not available
Boiling point	:	Not available
Flammability	:	Not available
Explosive limits	:	Not applicable
Lower explosion limit	:	Not applicable
Upper explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not available
pH	:	Not available
pH solution	:	Not available
Viscosity, kinematic	:	Not applicable
Solubility	:	Insoluble.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	Not available
Relative density	:	Not available
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available
Particle size distribution	:	Not available
Particle shape	:	Not available
Particle aspect ratio	:	Not available
Particle aggregation state	:	Not available
Particle agglomeration state	:	Not available
Particle specific surface area	:	Not available
Particle dustiness	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport. Damaged or opened cells or batteries can result in rapid heating and the release of flammable vapors.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids. Alkali.

10.4. Conditions to avoid

Direct sunlight. High temperature. Heat and ignition sources. Moisture. Do not allow contact with water. Do not freeze.

10.5. Incompatible materials

Strong oxidizing agents. Strong bases. Strong acids. Water.

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 (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

1,2-dimethoxyethane (110-71-4)	
LD50 oral rat	5370 mg/kg

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Manganese dioxide (1313-13-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Lithium perchlorate (7791-03-9)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

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

CR2032 Coin Cell	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

Other information : No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Additional information : No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation.

12.2. Persistence and degradability

CR2032 Coin Cell	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

CR2032 Coin Cell	
Bioaccumulative potential	No data available concerning bioaccumulation.

12.4. Mobility in soil

CR2032 Coin Cell	
Ecology - soil	No additional information available.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7. Other adverse effects

Other adverse effects : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be carried out using appropriate EWC code.

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Must not be disposed together with household garbage. Dispose in a safe manner in accordance with local/national regulations. To be disposed of as hazardous waste. Do not disassemble, short circuit, puncture, incinerate, crush, or puncture the battery. Do not mix new and used batteries.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3090	UN 3090	UN 3090	UN 3090	UN 3090
14.2. UN proper shipping name				
LITHIUM METAL BATTERIES	LITHIUM METAL BATTERIES	Lithium metal batteries	LITHIUM METAL BATTERIES	LITHIUM METAL BATTERIES

ADR	IMDG	IATA	ADN	RID
Transport document description				
UN 3090 LITHIUM METAL BATTERIES, 9A, (E)	UN 3090 LITHIUM METAL BATTERIES, 9	UN 3090 Lithium metal batteries, 9A	UN 3090 LITHIUM METAL BATTERIES, 9A	UN 3090 LITHIUM METAL BATTERIES, 9A
14.3. Transport hazard class(es)				
9A	9A	9A	9A	9A
				
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

Overland transport

Classification code (ADR) : M4
Special provisions (ADR) : 188, 230, 310, 376, 377, 387, 636
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P903, P908, P909, P910, P911, LP903, LP904, LP905, LP906
Transport category (ADR) : 2
Tunnel restriction code (ADR) : E

Transport by sea

Special provisions (IMDG) : 188, 230, 310, 376, 377, 384, 387
Limited quantities (IMDG) : 0
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P903, P908, P909 , P910, P911, LP903, LP904, LP905, LP906
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-I
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW19
Properties and observations (IMDG) : Electrical batteries containing lithium encased in a rigid metallic body. Lithium batteries may also be shipped in, or packed with, equipment. Electrical lithium batteries may cause fire due to an explosive rupture of the body caused by improper construction or reaction with contaminants.

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) : See 968
CAO max net quantity (IATA) : See 968
Special provisions (IATA) : A88, A99, A154, A164, A183, A201, A213, A334, A802
ERG code (IATA) : 12FZ

Inland waterway transport

Classification code (ADN)	:	M4
Special provisions (ADN)	:	188, 230, 310, 376, 377, 387, 636
Limited quantities (ADN)	:	0
Excepted quantities (ADN)	:	E0
Equipment required (ADN)	:	PP
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	M4
Special provisions (RID)	:	188, 230, 310, _376, 377, 387, 636
Limited quantities (RID)	:	0
Excepted quantities (RID)	:	E0
Packing instructions (RID)	:	P903, 908, 909, P910, P911, LP903, LP904, LP905, LP906
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE2
Hazard identification number (RID)	:	90

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not applicable.

REACH Annex XIV (Authorisation List)

Not applicable.

REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations above or equal to 0.1 %: 1, 2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (EC 203-794-9, CAS 110-71-4)

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (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 (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

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
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
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Data sources : ECHA (European Chemicals Agency). REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Supplier's safety documents.

Training advice : Training staff on good practice.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Full text of H- and EUH-statements:	
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
Ox. Sol. 1	Oxidising Solids, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1

Safety Data Sheet (SDS), EU_grey

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.