KRONES celerol LU 7608

Components	
Lubricant	KRONES celerol LU 7608 (Lubricant)
Lubricant dispenser	KRONES celerol LU 7608 (Lubricant dispenser)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) Date of issue: 29/03/2019 Revision date: 29/03/2019 Supersedes: 07/04/2017 Version: 3.00

SECTION 1: Identification of the s	substance/mixture	and of the company/undertaking
1.1. Product identifier		
Trade name	: KRONES ce	elerol LU 7608 (Lubricant)
1.2. Relevant identified uses of the set	ubstance or mixture	and uses advised against
1.2.1. Relevant identified uses Use of the substance/mixture	: Lubricant	
1.2.2. Uses advised against No additional information available		
1.3. Details of the supplier of the safe	ety data sheet	
Manufacturer/Supplier		Email competent person
KIC KRONES Internationale Cooperationsge Böhmerwaldstraße 5	esellschaft mbH	sds@kft.de
93073 Neutraubling T +49 9401 70-3020 - F +49 9401 70-3696		
kic@kic-krones.com - www.kic-krones.com		
1.4. Emergency telephone number		
Emergency number	Spill, Leak, Fire, Call CHEMTRE Within USA and	Materials [or Dangerous Goods] Incidents , Exposure, or Accident C Day or Night Canada: 1-800-424-9300 id Canada: +1 703-741-5970 (collect calls accepted)

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

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

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

2.3. Other hazards

Other hazards not contributing to the classification

: Repeated dermal contact with material can lead to defatting of the skin. High pressure applications: High-pressure injection under the skin may result in serious injuries and constitutes a major medical emergency.

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

: Blend based on : Mineral oil Thickeners Additives

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
White mineral oil	(CAS-No.) 8042-47-5 (EC-No.) 232-455-8 (REACH-no) 01-2119487078-27-xxxx	10 - 25	Not classified

SECTION 4: First aid measures

: Remove contaminated clothes. In all cases of doubt, or when symptoms persist, seek

4.1. Description of first aid measures

	medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth out with water. Drink plenty of water. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically. High pressure applications: High-pressure injection under the skin may result in serious injuries and constitutes a major medical emergency. Injuries or symptoms may not appear serious at first but within a few hours tissue may become swollen and discoloured and subcutaneous necrosis may occur. The high pressure may cause the product to penetrate deeper tissue layers. Extensive treatment should be undertaken without delay (operative decompression, debridement).

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Strong water jet.
5.2. Special hazards arising from the substa	ance or mixture
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Metal oxides.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Spilled material may present a slipping hazard.
6.1.1. For non-emergency personnel Emergency procedures	: Ventilate spillage area.
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".

6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Other information

: Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage			
7.1. Precautions for safe handling			
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. If spilled, may cause the floor to be slippery.		
Hygiene measures	: Wash hands before breaks and after work. Hand protection : skin cream may be used. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Avoid contact with skin and eyes. Remove contaminated clothes.		
7.2. Conditions for safe storage, including a	any incompatibilities		
Storage conditions	: Keep only in original container. Store tightly closed in a dry and cool place. Store in a well- ventilated place.		
Heat and ignition sources	: Keep away from heat and direct sunlight.		
Information about storage in one common storage facility	: Keep away from food, drink and animal feeding stuffs. Do not store with: oxidizing materials.		
7.3. Specific end use(s)			

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

White mineral oil (8042-47-5)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	220 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	160 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	40 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	35 mg/m³	
Long-term - systemic effects, dermal	93 mg/kg bodyweight/day	

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

In case of repeated or prolonged contact wear gloves. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber	6 (> 480 minutes)	> 0,35	No additional information available	EN ISO 374
Eye protection:					
Safety glasses with side shields. EN 166					
Skin and body protection:					
Wear suitable protective clothing					

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Short term exposure A-P2.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Environmental exposure controls:

Avoid release to the environment.

Other information:

Avoid contact with skin and eyes. Do not eat and do not drink during use. Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and after work. Apply emollient cream. Take off immediately all contaminated clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Cream.
Odour	: characteristic.
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: > 170 °C (Open cup)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: < 1 (25 °C)
Solubility	: Water: Insoluble
Log Pow	: Not applicable
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: Non oxidizing.
Explosive limits	: No data available
9.2. Other information	
VOC content	:0%

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with oxidants.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Oxidizing agent.

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

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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)
White mineral oil (8042-47-5)	
LD50 oral rat	> 5000 mg/kg ((OECD 401 method); Read-across)
LD50 dermal rabbit	> 2000 mg/kg ((OECD 402 method); Read-across)
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5 mg/l/4h ((OECD 403 method); Read-across)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
	pH: No data available
Additional information	: The liquid defats the skin Repeated or prolonged skin contact may cause irritation Dermatitis
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: No data available
Additional information	: May cause eye irritation
Respiratory or skin sensitisation	: May cause sensitisation of susceptible persons
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)
Aspiration hazard	: Not classified (Not relevant)

SECTION 12: Ecological information

12.1. Toxicity

NOEC chronic algae

Acute aquatic toxicity Chronic aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met) : Not classified (Based on available data, the classification criteria are not met)	
White mineral oil (8042-47-5)		
LC50 fish 1 > 10000 mg/l (96 h; Leuciscus idus (golden orfe); eq. (OECD 203 method))		
EC50 Daphnia 1	> 100 mg/l (48 h; Daphnia magna; (OECD 202 method))	
NOEC chronic crustacea	10 mg/l (21 d; Daphnia magna; (OECD 211 method); Read-across CAS 64742-53-6)	

12.2. Persistence and degradability

KRONES celerol LU 7608 (Lubricant)		
Persistence and degradability Not readily biodegradable.		

>= 100 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))

White mineral oil (8042-47-5)		
Persistence and degradability	Inherently biodegradable.	
Biodegradation	31 % (28 d; (OECD 301F method); Read-across)	

12.3. Bioaccumulative potential

KRONES celerol LU 7608 (Lubricant)		
Log Pow	Not applicable	
White mineral oil (8042-47-5)		

> 6

Log Kow

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

KRONES celerol LU 7608 (Lubricant)			
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			
White mineral oil (8042-47-5) 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			

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal consideratio	ons
13.1. Waste treatment methods	
Waste treatment methods	: Disposal must be done according to official regulations. Do not dispose of with domestic waste. Do not discharge into drains or the environment. European waste catalogue.

Product/Packaging disposal recommendations European List of Waste (LoW) code

: Do not re-use empty containers without proper cleaning or reconditioning.

: 12 01 12* - spent waxes and fats

- 15 01 02 plastic packaging
- 15 01 04 metallic packaging

15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

ADR	IMDG	ΙΑΤΑ	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shippin	g name			
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard o	class(es)			
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental haz	ards			
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information	on available			

14.6. Special precautions for user

Overland transport Not applicable Transport by sea Not applicable Air transport Not applicable Inland waterway transport Not applicable Rail transport Not applicable

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

Not applicable

SECTION 15: Regulatory information

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

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.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

VOC content	: 0 %
Other information, restriction and prohibition regulations	: A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis.

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

General revision.				
Section	Changed i	tem	Change	Comments
1.1	Trade nam	e	Modified	
8.1	DNEL		Added	
8.1	PNEC		Added	
8.1	Limit value	(mg/m³)	Removed	
11	Toxicologio	al information	Modified	
12.	Ecological	information	Modified	
15	Regulatory	information	Modified	
16	Other infor	mation	Modified	
Abbreviations an	d acronyms:			
		t concerning the International Carri	age of Dangerous Goods by Inland Waterways	
ADR			t concerning the International Carri	age of Dangerous Goods by Road
ATE Acute Toxicity Estimate		ate		
BCF	Bioconcentration facto		or	
CLP	Classification Labelling		ng Packaging Regulation; Regulati	on (EC) No 1272/2008
DMEL		Derived Minimal Effe	ct level	
DNEL	Derived-No Effect Leve		vel	
DPD		Dangerous Preparati	ons Directive 1999/45/EC	
DSD		Dangerous Substances Directive 67/548/EEC		
EC50		Median effective concentration		
IARC		International Agency for Research on Cancer		
ΙΑΤΑ		International Air Transport Association		
IMDG		International Maritime Dangerous Goods		
LC50		Median lethal concentration		
LD50		Median lethal dose		
LOAEL		Lowest Observed Adverse Effect Level		

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

NOAEC	No-Observed Adverse Effect Concentration			
NOAEL	No-Observed Adverse Effect Level			
NOEC	No-Observed Effect Concentration			
OECD	Organisation for Economic Co-operation and Development			
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			
STP	Sewage treatment plant			
TLM	Median Tolerance Limit			
vPvB	Very Persistent and Very Bioaccumulative			
Data sources	: Information provided by the manufacturer. ECHA (European Chemicals Agency).			
Department issuing data specification sheet:	: KFT Chemieservice GmbH Im Leuschnerpark. 3 64347 Griesheim Postfach 1451 64345 Griesheim Germany			
	Phone: +49 6155-8981-400 Fax: +49 6155 8981-500 Safety Data Sheet Service: +49 6155 8981-522			
Contact person	: Dr. Barbara Ridder			
Other information	: Version/s 2.00 is/are not available in this language.			

KFT SDS EU 00

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.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) Date of issue: 29/03/2019 Revision date: 29/03/2019 Version: 1.00

SECTION 1: Identification of the substance/mixture and of the company/undertaking					
1.1. Product identifier					
Trade name Type of product	: KRONES celerol LU 7608 (lubricant dispenser) : Article				
1.2. Relevant identified uses of the substan	nce or mixture and uses advised against				
1.2.1. Relevant identified uses Use of the substance/mixture	: lubrication system				
1.2.2. Uses advised against No additional information available					
1.3. Details of the supplier of the safety dat	a sheet				
Manufacturer/Supplier KIC KRONES Internationale Cooperationsgesellsch Böhmerwaldstraße 5 93073 Neutraubling T +49 9401 70-3020 - F +49 9401 70-3696 kic@kic-krones.com - www.kic-krones.com	Email competent person naft mbH sds@kft.de				
1.4. Emergency telephone number					
	: For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)				

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

H272
H301
H315
H319
H317
H350i
H360FD
H335
H373
H411

Adverse physicochemical, human health and environmental effects

The structural desing of the cells prevents release of the hazardous media contained therein when the unit is used for its intended purpose. The device contains an inaccessible stock of hazardous substances in a closed cartridge in order to produce gases needed for the operation (nitrogen/hydrogen). Do not therefore open the device or cartridge by force. Do not touch any substances that escape in the event of damage to the cartridge, and place the damaged cartridge in a closed container. While doing so, wear protective gloves and avoid contact with skin. Contact the manufacturer immediately. Further information is available on request.

2.2. Label elements

This product is an article and has not to be classified and labelled according to the current laws and regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Not applicable

3.2. Mixtures

Comments	: Article		
Name	Product identifier	%	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	<40	Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302
Magnesium percholrate	(CAS-No.) 10034-81-8 (EC-No.) 233-108-3	10 - <20	Ox. Sol. 2, H272 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
sodium azide	(CAS-No.) 26628-22-8 (EC-No.) 247-852-1 (EC Index-No.) 011-004-00-7	10 - <20	Acute Tox. 2 (Oral), H300 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
propylene carbonate	(CAS-No.) 108-32-7 (EC-No.) 203-572-1 (EC Index-No.) 607-194-00-1 (REACH-no) 01-2119537232-48-xxxx	<10	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	<6	Flam. Liq. 2, H225 Repr. 1B, H360FD Acute Tox. 4 (Inhalation), H332
lithium	(CAS-No.) 7439-93-2 (EC-No.) 231-102-5 (EC Index-No.) 003-001-00-4	<3	Water-react. 1, H260 Skin Corr. 1B, H314
Nickel(II) sulphate hexahydrate	(CAS-No.) 10101-97-0 (EC-No.) 600-152-3 (EC Index-No.) 028-009-00-5	0,1 - <0,25	Carc. 1A, H350i Muta. 2, H341 Repr. 1B, H360D STOT RE 1, H372 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Resp. Sens. 1, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Specific concentration limits:		_	
Name	Product identifier	Specific co	ncentration limits
Nickel(II) sulphate hexahydrate	(CAS-No.) 10101-97-0 (EC-No.) 600-152-3 (EC Index-No.) 028-009-00-5	(0.1 = <c 1<br="" <="">(1 =<c 100<="" <="" td=""><td>100) Skin Sens. 1, H317) STOT RE 2, H373)) STOT RE 1, H372)0) Skin Irrit. 2, H315</td></c></c>	100) Skin Sens. 1, H317) STOT RE 2, H373)) STOT RE 1, H372)0) Skin Irrit. 2, H315

Comments

: The concentrations are valid for gas generation cell. They are not for the complete system. The concentrations are valid for gas batteries. They are not for the complete system. The structural design of the cells prevents release of hazardous media contained therein when the unit is used for its intended purpose.

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention. Measures are only valid for damaged lubrication systems.
First-aid measures after inhalation	: Call a physician immediately. Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: After contact with skin, wash immediately and thoroughly with water and soap. Take off contaminated clothing. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Contact lenses should be removed. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

First-aid measures after ingestion

: Call a physician immediately. Rinse mouth. Drink plenty of water. Do not induce vomiting without medical advice.

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

No additional information available

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

Treat symptomatically.

SECTION 5: Firefighting measures			
5.1. Extinguishing media			
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.		
5.2. Special hazards arising from the substance or mixture			
Hazardous decomposition products in case of fire	: Toxic fumes may be released. On thermal decomposition (pyrolysis) : Nitrogen oxides, Hydrogen chloride.		
5.3. Advice for firefighters			
Firefighting instructions	: Cool down the containers exposed to heat with a water spray.		
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.		
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.		

SECTION 6: Accidental release measures	
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6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel Emergency procedures	: Ventilate spillage area. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe vapours, dust, spray.
6.1.2. For emergency responders	. Do not attempt to take action without suitable protective aquipment. For further info

Protective equipment

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

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Avoid sub-soil penetration. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.
Other information	: Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

7.2. Conditions for cafe starses including any incompatibilities		
Hygiene measures	: Wash hands before breaks and after work.	
Precautions for safe handling	: Ensure good ventilation of the work station.	

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep cool. Keep container tightly closed. Keep away from heat and direct sunlight.
Information about storage in one common storage facility	: Keep away from food, drink and animal feeding stuffs. Do not store with: combustible materials.

7.3. Specific end use(s)

No additional information available

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

manganese dioxide (1313-13-9)		
EU	Local name	Manganese (IV) dioxide
EU		0.2 mg/m ³ (inhalable fraction) 0.05 mg/m ³ (respirable fraction)
EU	Notes	SCOEL Recommendations (2011)

sodium azide (26628-22-8)		
EU	Local name	Sodium azide
EU	IOELV TWA (mg/m ³)	0.1 mg/m ³
EU	IOELV STEL (mg/m³)	0.3 mg/m ³
EU	Notes	Skin
EU	Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom	Local name	Sodium azide
United Kingdom	WEL TWA (mg/m³)	0.1 mg/m³ (as NaN3)
United Kingdom	WEL STEL (mg/m ³)	0.3 mg/m³ (as NaN3)
United Kingdom	Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

Nickel(II) sulphate hexahydrate (10101-97-0)		
EU	Local name	Nickel sulfate
EU		0.005 mg/m³ (respirable fraction) 0.01 mg/m³ (inhalable fraction)
EU	Notes	(Year of adoption 2011)
EU	Regulatory reference	SCOEL Recommendations

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:					
other quality features,	which differ for each mai	nufacturer. Please follow	the instructions related	pends not only on the type to the permeability and the vear or perforation appear	
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Butyl rubber	6 (> 480 minutes)	> 0,4 mm	No additional information available	EN ISO 374-1, EN 374-2, EN 374-3
Eye protection:					
Liquid splashes may o	ccur. Wear closed safety	glasses. EN 166			
Skin and body protec	tion:				
Wear suitable protective clothing. EN 340. EN 13034					
Respiratory protection	on:				

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust.

Environmental exposure controls:

Avoid release to the environment.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Other information:

The contained dangerous materials are not freely available with foreseeable use. Measures are only valid for damaged lubrication systems.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: capsule.
Colour	: No data available
Odour	: No data available
Odour threshold	: Not applicable
рН	: 8.3 - 8.8 (Liquid)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Miscible (Liquid)
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: Not applicable
Explosive properties	: No data available
Oxidising properties	: Non oxidizing.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May react violently with acids. Reacts with (strong) oxidizers.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Strong oxidizing agent. acids.

10.4. Conditions to avoid

heat.

10.5. Incompatible materials

No additional information available

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 (oral) Acute toxicity (dermal)

: Toxic if swallowed.

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

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Acute toxicity (inhalation)	: Not classified. (Based on available data, the classification criteria are not met)
ATE CLP (oral)	≈ 210 mg/kg bodyweight
sodium azide (26628-22-8)	

1,2-dimethoxyethane (110-71-4)	
LD50 oral rat	5370 mg/kg bodyweight (OECD 401 method)
LD50 dermal rat	> 5000 mg/kg bodyweight (OECD 402 method)
LC50 inhalation rat (mg/l)	> 20 - 63 mg/l (6h; vapours; eq. (OECD 403 method))

Nickel(II) sulphate hexahydrate (10101-97-0)	
LD50 oral rat	361.9 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	2.48 mg/l/4h (OECD 403 method)
Skin corrosion/irritation	: Causes skin irritation.
	pH: 8.3 - 8.8 (Liquid)
Additional information	: Calculation method
Serious eye damage/irritation	: Causes serious eye irritation.
	pH: 8.3 - 8.8 (Liquid)
Additional information	: Calculation method
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Additional information	: Calculation method
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Additional information	: Calculation method
Carcinogenicity	: May cause cancer by inhalation.
Additional information	: Calculation method
Reproductive toxicity	: May damage fertility. May damage the unborn child.
Additional information	: Calculation method
manganese dioxide (1313-13-9)	
NOAEL (animal/male, F0/P)	5 mg/m³ air

	-
NOAEL (animal/female, F0/P)	5 mg/m³ air
sodium azide (26628-22-8)	

LOAEL (animal/male, FU/F)	Tr.5 mg/kg bodyweight day
LOAEL (animal/female, F0/P)	17.5 mg/kg bodyweight/day
NOAEL (animal/male, F0/P)	5 mg/kg bodyweight/day
NOAEL (animal/female, F0/P)	5 mg/kg bodyweight/day
STOT-single exposure	: May cause respiratory irritation.
Additional information	: Calculation method
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Additional information	: Calculation method
sodium azide (26628-22-8)	
LOAEL (oral, rat, 90 days)	10 mg/kg bodyweight/day (Impairment of the nervous system)
NOAEL (oral, rat, 90 days)	5 mg/kg bodyweight/day (Impairment of the nervous system)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Other information	: The contained ingredients can be harmful to humans, but are hermetically enclosed in article and can not be released.

SECTION 12: Ecological information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

12.1. Toxicity

Ecology - general	: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	: Not classified (Based on available data, the classification criteria are not met)
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

sodium azide (26628-22-8)

. ,	
LC50 fish 1	0.68 mg/l (OECD 203 method)
EC50 Daphnia 1	400 μg/l Freshwater
EC50 Daphnia 2	150 μg/l SALT WATER
EC50 96h algae (1)	0.348 mg/l (OECD 201 method)

Nickel(II) sulphate hexahydrate (10101-97-0)		
LC50 fish 1	15.3 mg/l (Oncorhynchus mykiss (Rainbow trout))	
EC50 Daphnia 1	200 g/l (48h; Ceriodaphnia dubia)	
EC50 72h algae	81.5 - 148 μg/L (72h; Pseudokirchneriella subcapitata; OECD 201)	
NOEC (chronic)	108.9 μg/L (30d; Pimephales promelas)	

12.2. Persistence and degradability

propylene carbonate (108-32-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	87.7 % (29 d)

manganese dioxide (1313-13-9)

Persistence and degradability	Not applicable for inorganic substances.

sodium azide (26628-22-8)

Persistence and degradability	Not relevant.

1,2-dimethoxyethane (110-71-4)	
Persistence and degradability	Not readily biodegradable.
Biodegradation 16 % (48 d; (OECD 302B method))	

12.3. Bioaccumulative potential

manganese dioxide (1313-13-9)	
Bioaccumulative potential	Not applicable for inorganic substances.

sodium azide (26628-22-8)	
Log Pow	Not applicable
12.4. Mobility in soil	

sodium azide (26628-22-8)	
Log Koc	≈ 2.62 (20 °C; (OECD 106 method))

12.5. Results of PBT and vPvB assessment

Component		
propylene carbonate (108-32-7)	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	
manganese dioxide (1313-13-9)	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	
sodium azide (26628-22-8)	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	

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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
Nickel(II) sulphate hexahydrate (10101-97-0)	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
12.6. Other adverse effects	
Additional information	: The contained ingredients can be harmful for the environment, but they are hermetically enclosed in this article and can not be released.

SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Recycle or dispose of in compliance with current legislation.
European List of Waste (LoW) code	: 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

ADR	IMDG	ΙΑΤΑ	ADN	RID
14.1. UN number				
UN 3363	UN 3363	UN 3363	UN 3363	UN 3363
14.2. UN proper shippin	g name			
dangerous goods in machinery or dangerous goods in apparatus	DANGEROUS GOODS IN APPARATUS	Dangerous goods in apparatus	dangerous goods in machinery or dangerous goods in apparatus	DANGEROUS GOODS IN APPARATUS
Transport document descr	iption			
UN 3363 dangerous goods in machinery or dangerous goods in apparatus, 9	UN 3363 DANGEROUS GOODS IN APPARATUS, 9	UN 3363 Dangerous goods in apparatus, 9	UN 3363 dangerous goods in machinery or dangerous goods in apparatus, 9	UN 3363 DANGEROUS GOODS IN APPARATUS, 9
14.3. Transport hazard o	class(es)			
9	9	9	9	9
Not applicable			Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental haz	ards			
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

14.6. Special precautions for user

Overland transport	
Transport regulations (ADR)	: Not subject
Classification code (ADR)	: M11
EAC code	: 1Z
Transport by sea	
Special provisions (IMDG)	: 301
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-P

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Air transport	
PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: See 962
PCA max net quantity (IATA)	: See 962
CAO max net quantity (IATA)	: See 962
Special provisions (IATA)	: A48, A107
Inland waterway transport	
Classification code (ADN)	: M11
Rail transport	
Classification code (RID)	: M11
Limited quantities (RID)	: 0

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:		
3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	propylene carbonate - 1,2-dimethoxyethane	
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	KRONES celerol LU 7608 (lubricant dispenser) - 1,2-dimethoxyethane	
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	KRONES celerol LU 7608 (lubricant dispenser) - propylene carbonate - 1,2-dimethoxyethane	
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	KRONES celerol LU 7608 (lubricant dispenser)	
27. Nickel and its compounds	Nickel(II) sulphate hexahydrate	
28. Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.	Nickel(II) sulphate hexahydrate	
30. Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively.	1,2-dimethoxyethane - Nickel(II) sulphate hexahydrate	
40. 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.	1,2-dimethoxyethane - lithium	

Contains a substance on the REACH candidate list in concentration ≥ 0.1% or with a lower specific limit: 1,2-dimethoxyethane (EC 203-794-9, CAS 110-71-4)

Contains no REACH Annex XIV substances

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.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Other information, restriction and prohibition regulations	: This product is an article and has not to be classified and labelled according to the current laws and regulations. A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis. Take note of Directive 94/33/EC on the protection of young people at work. Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.
15.1.2. National regulations	
United Kingdom	
National regulations	: Take note of Directive 92/85/EC on the safety and health of pregnant workers at work.

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		
BCF	Bioconcentration factor		
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC50	Median effective concentration		
IARC	International Agency for Research on Cancer		
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		
OECD	Organisation for Economic Co-operation and Development		
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		
STP	Sewage treatment plant		
TLM	Median Tolerance Limit		
vPvB	Very Persistent and Very Bioaccumulative		
Data sources	: MSDS of the supplier.		
Department issuing data specification sheet:	: KFT Chemieservice GmbH Im Leuschnerpark. 3 64347 Griesheim Postfach 1451 64345 Griesheim Germany		
	Phone: +49 6155-8981-400 Fax: +49 6155 8981-500 Safety Data Sheet Service: +49 6155 8981-522		
Contact person	: Dr. Barbara Ridder		

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Full text of H- and EUH-statements	8:		
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3		
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4		
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1		
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2		
Carc. 1A	Carcinogenicity (inhalation) Category 1A		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
Flam. Liq. 2	Flammable liquids, Category 2		
Muta. 2	Germ cell mutagenicity, Category 2		
Ox. Liq. 2	Oxidising Liquids, Category 2		
Ox. Sol. 2	Oxidising Solids, Category 2		
Repr. 1B	Reproductive toxicity, Category 1B		
Repr. 1B	Reproductive toxicity, Category 1B		
Resp. Sens. 1	Respiratory sensitisation, Category 1		
Skin Corr. 1B	Skin corrosion/irritation, Category 1B		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1		
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2		
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation		
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1		
H225	Highly flammable liquid and vapour.		
H260	In contact with water releases flammable gases which may ignite spontaneously.		
H272	May intensify fire; oxidiser.		
H300	Fatal if swallowed.		
H301	Toxic if swallowed.		
H302	Harmful if swallowed.		
H314	Causes severe skin burns and eye damage.		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H319	Causes serious eye irritation.		
H332	Harmful if inhaled.		
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.		
H335	May cause respiratory irritation.		
H341	Suspected of causing genetic defects.		
H350i	May cause cancer by inhalation.		
H360D	May damage the unborn child.		
H360FD	May damage fertility. May damage the unborn child.		
H372	Causes damage to organs through prolonged or repeated exposure.		
H373	May cause damage to organs through prolonged or repeated exposure.		
H400	Very toxic to aquatic life.		
H400	Very toxic to aquatic life with long lasting effects.		

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

H411	Toxic to aquatic life with long lasting effects.		
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:			
Ox. Liq. 2	H272	Expert judgment	
Acute Tox. 3 (Oral)	H301	Expert judgment	
Skin Irrit. 2	H315	Calculation method	
Eye Irrit. 2	H319	Calculation method	
Skin Sens. 1	H317	Calculation method	
Carc. 1A	H350i	Expert judgment	
Repr. 1B	H360FD	Expert judgment	
STOT SE 3	H335	Expert judgment	
STOT RE 2	H373	Calculation method	
Aquatic Chronic 2	H411	Calculation method	

KFT SDS EU 00

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.