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

1.1 Product identifier

Trade name: Kryo 15

This safety data sheet pertains to the following products:
LZB 133
LZB 233
LZB 333
LZB 833

UFI: CM30-E0RS-300F-MEUV

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

General use: Heat transfer fluids
Industrial use
Professional uses / Public domain

1.3 Details of the supplier of the safety data sheet

Company name: Lauda Dr. R. Wobser GmbH & Co. KG
Street/POB-No.: Laudaplatz 1
Postal Code, city: 97922 Lauda-Königshofen
Germany
WWW: www.lauda.de
E-mail: info@lauda.de
Telephone: +49 (0)9343-503-0
Telefax: +49 (0)9343-503-222

Department responsible for information:
Department Quality Management,
Telephone: +49 9343 503-331, e-mail info@lauda.de

1.4 Emergency telephone number

National Poisons Information Service (Birmingham Unit)
Telephone: 844 892 0111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

Acute Tox. 4; H302 Harmful if swallowed.
STOT RE 2; H373 May cause damage to kidneys through prolonged or repeated exposure if swallowed.

2.2 Label elements

Labelling (CLP)

Signal word: **Warning**

Hazard statements:	H302	Harmful if swallowed.
	H373	May cause damage to kidneys through prolonged or repeated exposure if swallowed.
Precautionary statements:	P260	Do not breathe mist/vapours/spray.
	P264	Wash hands and face thoroughly after handling.
	P314	Get medical advice/attention if you feel unwell.
	P501	Dispose of contents/container to hazardous or special waste collection point.

Special labelling

Text for labelling: Contains: Ethylene glycol.

2.3 Other hazards

Danger of cutaneous absorption.
Special danger of slipping by leaking/spilling product.

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: A mixture of: Water, ethylene glycol, corrosion inhibitors.

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2119456816-28-xxxx EC No. 203-473-3 CAS 107-21-1	Ethylene glycol Acute Tox. 4; H302. STOT RE 2; H373.	30 - 50 %

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information: If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse.

In case of inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if problems persist.

Following skin contact: Remove residues with soap and water. In case of skin reactions, consult a physician.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After swallowing: Rinse mouth. Never give anything by mouth to an unconscious person. Do not induce vomiting. Immediately get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Harmful if swallowed. May cause damage to kidneys through prolonged or repeated exposure if swallowed.

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 jet, alcohol resistant foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:
Full water jet.

5.2 Special hazards arising from the substance or mixture

In the event of a fire, the following may be produced when the water evaporates: Carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information: Hazchem-Code: -

Cool endangered containers with water spray jet.
Do not allow fire water to penetrate into surface or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe mist/vapours/spray. Avoid contact with the substance.
If possible, eliminate leakage. Provide adequate ventilation.
Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

6.2 Environmental precautions

Do not allow to enter into ground-water, surface water or drains.
If necessary, notify appropriate authorities.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents) and place in closed containers for disposal.
Never return spills in original containers for re-use.

Additional information: Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:
Keep container tightly closed and in a well-ventilated place.
Keep container dry. Keep only in the original container.
Protect from heat/sunlight and frost. Store containers in upright position.

Hints on joint storage: Do not store together with oxidizing agents or alkalis.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
107-21-1	Ethylene glycol	Great Britain: WEL-STEL	104 mg/m³; 40 ppm (vapour, may be absorbed through the skin)
		Great Britain: WEL-TWA	10 mg/m³ (may be absorbed through the skin)
		Great Britain: WEL-TWA	52 mg/m³; 20 ppm (vapour, may be absorbed through the skin)

DNEL/DMEL: Information about Ethylene glycol (CAS 107-21-1):
DNEL, workers, inhalative, local, long-term: 35 mg/m³
DNEL, workers, dermal, systemic, long-term: 106 mg/kg bw/d
DNEL, consumers, inhalative, local, long-term: 7 mg/m³
DNEL, consumers, dermal, systemic, long-term: 53 mg/kg bw/d

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. In case of inadequate ventilation wear respiratory protection. filter type ABEK-P3.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to BS EN ISO 374-1.

Permanent contact:
Glove material: Butyl caoutchouc (butyl rubber)
Layer thickness: >= 0.7 mm.
Breakthrough time: > 480 min.

During splash contact:
Glove material: Nitrile rubber
Layer thickness: >= 0.4 mm.
Breakthrough time: > 30 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to BS EN ISO 16321-1.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:
Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing.
Take off contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling. Have eye wash bottle or eye rinse ready at work place.

Environmental exposure controls

Refer to "6.2 Environmental precautions".

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Colour: Light yellow
Odour:	Slightly perceptible
pH:	at 20 °C: 8 - 9
Melting point/freezing point:	-23 °C
Initial boiling point and boiling range:	approx. 106 °C
Flash point/flash point range:	Not combustible
Flammability:	No data available
Explosion limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Density:	at 20 °C: approx. 1.05 g/mL

Water solubility:	at 20 °C: Miscible
Partition coefficient: n-octanol/water:	at 25 °C: -1.36 log K(o/w) (Ethylene glycol) Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.
Auto-ignition temperature:	No data available
Decomposition temperature:	> 250 °C (DSC)
Viscosity, kinematic:	at 20 °C: approx. 2.8 mm²/s
Explosive properties:	No data available
Oxidizing characteristics:	No data available

9.2 Other information

Ignition temperature:	Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Protect from heat/sunlight and frost.

10.5 Incompatible materials

Oxidizing agents, alkalis.

10.6 Hazardous decomposition products

No hazardous decomposition products when regulations for storage and handling are observed.

Thermal decomposition:	> 250 °C (DSC)

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Toxicological effects:

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Acute Tox. 4; H302 = Harmful if swallowed.
ATEmix (calculated): 300 mg/kg < ATE <= 2,000 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met.
ATEmix (calculated): > 5,000 mg/kg

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
ATEmix (calculated, vapour): > 20 mg/L/4h

Skin corrosion/irritation: Lack of data.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Lack of data.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): STOT RE 2; H373 = May cause damage to organs through prolonged or repeated exposure.
Target organ: Kidneys.
Exposure route: In case of ingestion.

Aspiration hazard: Lack of data.

Other information:

Information about Ethylene glycol (CAS 107-21-1):
LD50 Rat, oral: 7,712 mg/kg
ATE oral: 500 mg/kg
LD50 Mouse, dermal: > 3,500 mg/kg
LC50 Rat, inhalative (dust/mist): > 2.5 mg/L/6h

Symptoms

After contact with skin: Danger of cutaneous absorption.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Information about Ethylene glycol (CAS 107-21-1):
Fish toxicity:
LC50 Pimephales promelas (fathead minnow): 53,000 mg/L/96h
NOEC Menidia peninsulae: > 40 mg/L/28d
Daphnia toxicity:
EC50 Daphnia magna (Big water flea): > 100 mg/L/48h (OECD 202)
NOEC Ceriodaphnia dubia (water flea): 8,590 mg/L/7d
Algae toxicity:
NOEC Pseudokirchneriella subcapitata (green algae): > 100 mg/L/72h

12.2 Persistence and degradability

Further details:

Biodegradability:
Information about Ethylene glycol (CAS 107-21-1):
DOC reduction: 90 - 100 %/10d (OECD 301 A), readily biodegradable.

Effects in sewage plants:

Information about Ethylene glycol (CAS 107-21-1):
EC20 activated sludge: > 1,995 mg/L/30min (ISO 8192)
EC50 activated sludge: > 1,000 mg/L/3h (OECD 209)

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:

at 25 °C: -1.36 log K(o/w) (Ethylene glycol)
Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The product contains no components classified as PBT or as vPvB at concentrations of 0.1% or higher.

12.6 Other adverse effects

General information:

Do not allow to enter into ground-water, surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number:

16 01 14* = Antifreeze fluids containing hazardous substances
* = Evidence for disposal must be provided.

Recommendation:

Incinerate as hazardous waste according to applicable local, state, and federal regulations. Liquid product may not be disposed of with household waste or landfilled. Do not allow to enter into drains/waters or in the soil.

Package

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number

ADR/RID, IMDG, IATA-DGR: not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR: Not restricted

14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR: not applicable

14.4 Packing group

ADR/RID, IMDG, IATA-DGR: not applicable

14.5 Environmental hazards

Marine pollutant: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

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

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -

No data available

National regulations - EC member states

Further regulations, limitations and legal requirements:

Use restriction according to REACH annex XVII, no.: 3

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Classification procedure: Physical hazards: on basis of test data
Health hazards, environmental hazards: calculation method

Wording of the H-phrases under paragraph 2 and 3:
H302 = Harmful if swallowed.
H373 = May cause damage to kidneys through prolonged or repeated exposure if swallowed.

Abbreviations and acronyms:
Acute Tox.: Acute toxicity
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
AS/NZS: Australian Standards/New Zealand Standards
ATE: Acute toxicity estimate
ATEmix: Acute Toxicity Estimate of mixture
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
DOC: Dissolved Organic Carbon
EC: European Community
EC50: Effective Concentration 50%
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
EN: European Standard
EQ: Excepted quantities
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
IMO: International Maritime Organization
ISO: International Organization for Standardization
LC50: Median lethal concentration
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Co-operation and Development
OEL: Occupational Exposure Limit Value
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
STOT RE: Specific target organ toxicity - repeated exposure
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UFI: Unique Formula Identifier
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 1: UFI
Date of first version: 24/10/2025

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.