

SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006, as retained and amended in UK law [UK REACH]

Revision date: 29/9/2023
Version: 7.0
Replaces version: 6.0
Language: en-GB
Date of print: 4/12/2023

Kryo 65

Material number LZB x18

Page: 1 of 9

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

1.1 Product identifier

Trade name: Kryo 65
REACH registration No.: 01-2119472146-39-XXXX

This safety data sheet pertains to the following products:

LZB 118: 5 L
LZB 218: 10 L
LZB 318: 20 L

CAS-Number: -
List number: 918-167-1

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

General use: Heat transferring agent
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)

Asp. Tox. 1; H304 May be fatal if swallowed and enters airways.
(EUH066) Repeated exposure may cause skin dryness or cracking.

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2.2 Label elements

Labelling (CLP)



Signal word:

Danger

Hazard statements:

H304 May be fatal if swallowed and enters airways.
EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331 Do NOT induce vomiting.
P370+P378 In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.
P405 Store locked up.
P501 Dispose of contents/container to hazardous or special waste collection point.

Special labelling

Text for labelling:

Contains Hydrocarbons, C11-C12, isoalkanes, < 2% aromatics.

2.3 Other hazards

Vapours can form explosive mixtures with air.
Repeated exposure may cause skin dryness or cracking.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterisation: Hydrocarbons, C11-C12, isoalkanes, aromatic contents: < 2%

CAS-Number:

-

List number:

918-167-1

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

In all cases of doubt, or when symptoms persist, seek medical advice.
Make victims lie down and keep still, take them to a doctor and show him this safety data sheet.
In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.
Take off contaminated clothing and wash it before reuse.

In case of inhalation:

Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Seek medical attention.
Make sure he/she is warm and comfortable. Subsequent observance for pneumonia and lung oedema.

Following skin contact:

After contact with skin, wash immediately with soap and plenty of water. Change contaminated clothing.
Seek medical attention if irritation persists. Wash contaminated clothing prior to re-use.
Following fire: Immerse in cold water for a prolonged period. Consult physician immediately.

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.

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After swallowing: Immediately get medical attention.
Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Observe risk of aspiration if vomiting occurs. If breathing has stopped, give artificial respiration immediately. In case of difficulties in breathing give oxygen. Subsequent observance for pneumonia and lung oedema.

4.2 Most important symptoms and effects, both acute and delayed

Repeated exposure may cause skin dryness or cracking. May be fatal if swallowed and enters airways.

4.3 Indication of any immediate medical attention and special treatment needed

Even very small amounts of this product that enters the lungs as a result of vomiting may lead to inflammation of the lungs or a pulmonary edema.
Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water spray jet, extinguishing powder, foam, 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

Exposure to fire may cause containers to rupture/explode.
During fire: produces thick black smoke that may be hazardous to health. Harmful and/or toxic vapours may be produced in the event of thermal decomposition.
Decomposition products include: carbon monoxide and carbon dioxide, unburned hydrocarbons

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: -

Use water spray jet to protect personnel and to cool endangered containers. Danger of bursting container. Use water spray jet to knock down vapours. Do not allow water used to extinguish fire to enter drains, ground or waterways. Cool endangered containers with water spray and, if possible, remove from danger zone. Heating will lead to pressure increase: Danger of bursting and explosion. You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so. Avoid exposure. Remove persons to safety. Plug leak if safely possible. Wear appropriate protective equipment. Keep unprotected people away. Avoid contact with the substance. Do not breathe vapours. Provide adequate ventilation.

6.2 Environmental precautions

Clear up spills immediately and dispose of waste safely. Do not allow to penetrate into soil, waterbodies or drains.
Inform the relevant authorities in case of leakage into sewers, aquatic environment or soil.

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6.3 Methods and material for containment and cleaning up

Take up with non-flammable, liquid binding material (e.g. sand/earth/diatomaceous earth/vermiculit) and perform disposal according to instructions. Thoroughly clean surrounding area.
In case of spills of large quantities: Dam spills and pump to remove. Explosion protection required. Thoroughly clean surrounding area.

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 for good ventilation or exhaust system or work with completely self-contained equipment. Avoid generation of vapours/aerosols. Avoid contact with skin, eyes, and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable protective clothing, gloves and eye/face protection.

Precautions against fire and explosion:

Keep away from sources of ignition and heat. Smoking is forbidden. Take precautionary measures against static discharges. When using product or filling containers, use only grounded equipment with bonding leads. Use only spark proof tools.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container dry, tightly closed and store at cool and aired place. Protect from sunlight. Store carefully closed containers upright to prevent any leaks. Only use containers specifically approved for the substance/product. Take care of the national and local legal and statutory regulations.

Only trained personnel may be allowed to enter storage area.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs. Do not store together with oxidizing agents.

Further details:

Recommendation: Storage: cool and dry in original container.

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
-	Kryo 65	Great Britain: WEL-TWA	1200 mg/m ³ (alkanes >= C7)
-		Great Britain: WEL-TWA	800 mg/m ³ (> or = C7, Cycloalkanes)
-	Hydrocarbons, C11-C12, isoalkanes, aromatic contents: < 2%	Great Britain: WEL-TWA	1200 mg/m ³ (alkanes >= C7)
-		Great Britain: WEL-TWA	800 mg/m ³ (> or = C7, Cycloalkanes)

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area. when dust and vapours form
Withdraw by suction.

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Personal protection equipment

Occupational exposure controls

Respiratory protection:	Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A-P2 according to EN 14387. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
Hand protection:	Protective gloves according to BS EN 374. Glove material: Nitrile rubber Breakthrough time: >480 min. Check leak tightness/impermeability prior to use. Ensure operatives are trained to minimise exposures. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Wear suitable protection goggles against splashing medium, face protection also as required. Recommendation: Tightly sealed goggles according to BS EN ISO 16321-1:2022.
Body protection:	Wear suitable protective clothing. In case of handling larger quantities: Flame-resistant antistatic protective clothing. Wash contaminated clothing before reuse. The resistance to chemicals of the protective means should be clarified with their suppliers.
General protection and hygiene measures:	Take off immediately all contaminated clothing. When using do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Do not breathe vapours. Avoid contact with skin and eyes. Guarantee that the eye flushing systems and safety showers are closely located to the working place.

Environmental exposure controls

Do not allow to penetrate into soil, waterbodies or drains. Spilled quantities may penetrate into soil and lead to a contamination of ground water.

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 Form: oily Colour: colourless
Odour:	weak
Odour threshold:	No data available
pH:	not applicable
Melting point/freezing point:	<= 50 °C
Initial boiling point and boiling range:	192 °C (1013 hPa)
Flash point/flash point range:	62 °C (ATSM D-93)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): 0.60 Vol-% UEL (Upper Explosive Limit): 7.00 Vol-%

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Vapour pressure:	at 20 °C: ≤ 1 hPa
Vapour density:	No data available
Density:	at 15 °C: 764 kg/m ³ (DIN 51757) at 25 °C: 756 kg/m ³ (DIN 51757)
Water solubility:	at 25 °C: ≤ 1 mg/L
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	247 - 277 °C (ASTM E-659)
Decomposition temperature:	No data available
Viscosity, kinematic:	at -50 °C: 14.8 mm ² /s (DIN 51562-1) at 40 °C: 1.23 mm ² /s (DIN 51562-1) at 100 °C: 0.65 mm ² /s (DIN 51562-1)
Explosive properties:	Not explosive. Vapours can form explosive mixtures with air.
Oxidizing characteristics:	Not oxidising

9.2 Other information

Additional information: No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapours can form explosive mixtures with air.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Heating will lead to pressure increase: Danger of bursting and explosion.

10.4 Conditions to avoid

Keep away from heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Thermal decomposition: No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: LD50 Rat, oral: > 5000 mg/kg
LD50 Rabbit, dermal: > 5000 mg/kg
LD50 Rat, inhalative: > 5000 mg/m³/4h

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Toxicological effects:

- Acute toxicity (oral): Based on available data, the classification criteria are not met.
- Acute toxicity (dermal): Based on available data, the classification criteria are not met.
- Acute toxicity (inhalative): Based on available data, the classification criteria are not met.
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
- Serious eye damage/irritation: Based on available data, the classification criteria are not met.
- Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.
- Skin sensitisation: Based on available data, the classification criteria are not met.
- Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.
- No experimental indications of in vitro mutagenicity exist.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- carcinogenicity: negative (The evaluation based on observed symptoms obtained from single or repeated inhalation toxicity animal tests.)
- Reproductive toxicity: Based on available data, the classification criteria are not met.
- Developmental toxicity: negative (Rat, oral)
- Effects on or via lactation: Based on available data, the classification criteria are not met.
- Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.
- Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.
- Aspiration hazard: Asp. Tox. 1; H304 = May be fatal if swallowed and enters airways.

Other information:

- Subchronic oral toxicity:
 - NOAEL Rat, oral: >3000 mg/kg/d
 - NOAEL Dog, oral: >25 mg/kg/d
 - NOAEC Rat, inhalative male: >=2200 mg/kg/d
 - NOAEC Rat, inhalative female: 275 mg/kg/d

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

- Fish toxicity: Oncorhynchus mykiss LC50 > 1000mg/L/96h
- Daphnia toxicity: Daphnia magna (Big water flea) EC50 > 1000mg/L/48h
- Algae toxicity: Pseudokirchneriella subcapitata (green algae) IC50 > 1000mg/L/72h
- Chronic (long-term) fish toxicity:
 - NOEL Oncorhynchus mykiss: 0.28 mg/L
- Chronic (long-term) toxicity to crustacea:
 - NOEL Daphnia magna (Big water flea): >1 mg/L

12.2 Persistence and degradability

Further details: 31% / 28d Potentially biologically degradable.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

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12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6 Other adverse effects

General information: Do not allow to penetrate into soil, waterbodies or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 13 03 10* = Other insulating and heat transmission oils
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation. Send to a hazardous waste incinerator facility under observation of official regulations.

Package

Recommendation: Dispose of waste according to applicable legislation.

Additional information

Do not empty into drains; dispose of this material and its container in a safe way.

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

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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

List number: 918-167-1

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Further 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
- AS/NZS: Australian Standards/New Zealand Standards
- Asp. Tox.: Aspiration toxicity
- CAS: Chemical Abstracts Service
- CFR: Code of Federal Regulations
- CLP: Classification, Labelling and Packaging
- DMEL: Derived minimal effect level
- DNEL: Derived no-effect level
- EC: European Community
- EC50: Effective Concentration 50%
- 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
- IC50: Inhibition Concentration 50%
- IMDG Code: International Maritime Dangerous Goods Code
- LC50: Median lethal concentration
- LD50: Lethal dose 50%
- LEL: Lower Explosion Limit
- MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
- NOAEL: No Observed Adverse Effect Level
- 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
- TLV: Threshold Limit Value
- TRGS: Technical Rules for Hazardous Substances
- UN: United Nations
- vPvB: Very persistent and very bioaccumulative
- WEL: Workplace Exposure Limit

Reason of change: Changes in section 1: Product identifier

Date of first version: 5/11/2014

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.