

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

Kryo 60

Material number LZB x02 Page: 1 of 5

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

#### 1.1 Product identifier

Trade name: Kryo 60

This safety data sheet pertains to the following products:

LZB 102: 5 L LZB 202: 10 L LZB 302: 20 L

# 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.lauda.de info@lauda.de +49 (0)9343-503-0

Telephone: +49 (0)9343-503-0 Telefax: +49 (0)9343-503-222

 $\label{lem:possible} \mbox{ Department responsible for information: }$ 

www:

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)

This substance is classified as not hazardous.

#### 2.2 Label elements

#### Labelling (CLP)

Hazard statements: not applicable
Precautionary statements: not applicable

**Special labelling** 

Safety data sheet available on request.

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10.0

9.0

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

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Date of print: 4/12/2023

Revision date: 6/11/2023

Kryo 60

Material number LZB x02 Page: 2 of

#### 2.3 Other hazards

Measurements taken at temperatures exceeding 150 °C have revealed that a small quantity of formaldehyde splits off through oxidative decomposition.

Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing concentration less than one part per million (1ppm).

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

CAS No.	Designation	PBT/vPvB	ED Human	ED Environment
540-97-6	Dodecamethylcyclohexasiloxane (impurity) (SVHC)	PBT, vPvB	List II	

# **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

Chemical characterisation: Polydimethylsiloxane,

Hazardous ingredients:

Identifiers	Designation Classification	Content
REACH 01-2119517435-42-xxxx EC No. 208-762-8 CAS 540-97-6	Dodecamethylcyclohexasiloxane (impurity) (SVHC) not classified	(Impurity) < 0.25 %

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

Additional information:

Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: Dodecamethylcyclohexasiloxane (impurity) (PBT (Article 57d); vPvB (Article 57e))

# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

In case of inhalation: Provide fresh air. Seek medical treatment in case of troubles.

Following skin contact: Remove residues with soap and water. Take off contaminated clothing and wash it before reuse. In case of

skin reactions, consult a physician.

Protect skin by using skin protective cream.

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 thoroughly with water. Never give anything by mouth to an unconscious person.

Do not induce vomiting. Seek medical attention.

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

No data available

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

Treat symptomatically.



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

Kryo 60

Material number LZB x02 Page: 3 of

# **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

Suitable extinguishing media: Alcohol resistant foam, extinguishing powder, carbon dioxide, atomized water, Sand

Extinguishing media which must not be used for safety reasons:

Full water jet

### 5.2 Special hazards arising from the substance or mixture

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

May form dangerous gases and vapours in case of fire.

Measurements taken at temperatures exceeding 150 °C have revealed that a small quantity of

formaldehyde splits off through oxidative decomposition.

### 5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: -

Cool endangered containers with water jetspray. 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

Avoid exposure. Stop leak if safe to do so. Avoid contact with the substance. Do not breathe vapour.

Ensure adequate ventilation, especially in confined areas.

Wear appropriate protective equipment. Keep unprotected people away. Take off contaminated clothing

and wash it before reuse.

#### 6.2 Environmental precautions

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

### 6.3 Methods and material for containment and cleaning up

Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder. Store in special

closed containers and dispose of according to ordinance.

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:

Obtain special instructions before use. Avoid contact with skin and eyes. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse.

Provide adequate ventilation, and local exhaust as needed.

Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

Safety shower and eye wash station should be easily accessible to the work area.

Revision date: 6/11/2023

Date of print: 4/12/2023

10.0

9.0

en-GB

Version:

Language:



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

Kryo 60

Material number LZB x02 Page: 4 of 9

Precautions against fire and explosion:

Keep away from sources of ignition and heat.

Take precautionary measures against static discharges.

When using product or filling containers, use only grounded equipment with bonding leads.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers

Keep only in original container. Store in well closed containers in a cool, dry, well-ventilated area.

Protect from direct sunlight. Opened containers shall be carefully closed and stored in upright position.

Hints on joint storage: keep away from: oxidizing agents.

Keep away from food, drink and animal feedingstuffs.

#### 7.3 Specific end use(s)

No information available.

# SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

DNEL/DMEL: Information about Dodecamethylcyclohexasiloxane:

DNEL workers, inhalative, systemic, long-term: 11 mg/m³
DNEL workers, inhalative, local, long-term: 1.22 mg/m³
DNEL workers, inhalative, local, short-term: 6.1 mg/m³
DNEL consumers, inhalative, systemic, long-term: 2.7 mg/m³
DNEL consumers, inhalative, local, long-term: 0.3 mg/m³
DNEL consumers, inhalative, local, short-term: 1,5 mg/m³
DNEL consumers, oral, systemic, long-term: {dec 1,7 mg/kg bw/d DNEL consumers, oral, systemic, short-term: 1.7 mg/kg bw/d

PNEC: Information about Dodecamethylcyclohexasiloxane:

PNEC sewage treatment plant: 1 mg/L PNEC sediment (freshwater): 13 mg/kg PNEC sediment (marine water): 1.3 mg/kg

PNEC soil: 3.77 mg/kg

# 8.2 Exposure controls

When aerosols and vapours form: Withdraw by suction.

# Personal protection equipment

#### Occupational exposure controls

Respiratory protection in case of aerosol or vapour formation

Use combination filter type A-P2 according to EN 14387.

Hand protection: Protective gloves according to BS EN 374.

Glove material: Butyl caoutchouc (butyl rubber), Nitrile rubber

Breakthrough time: >480 min.

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

Eye protection: Tightly sealed goggles according to BS EN ISO 16321-1:2022.

Body protection: Wear suitable protective clothing.

Revision date: 6/11/2023

Date of print: 4/12/2023

Version:

Language:

Replaces version:

10.0

9.0

en-GB



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

Kryo 60

Revision date: 6/11/2023
Version: 10.0
Replaces version: 9.0
Language: en-GB
Date of print: 4/12/2023

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General protection and hygiene measures:

Material number LZB x02

Obtain special instructions before use. Avoid contact with skin and eyes. Take off contaminated clothing and wash it before reuse.

Wash hands before breaks and after work. Do not eat, drink or smoke when using this product. Safety shower and eye wash station should be easily accessible to the work area.

#### **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: colourless

Odour: odourless

Odour threshold: No data available

pH: not applicable

Melting point/freezing point: No data available
Initial boiling point and boiling range: No data available
Flash point/flash point range: > 62 °C (ISO 2592)
Evaporation rate: No data available

Flammability: This material is combustible, but will not ignite readily.

Explosion limits: LEL (Lower Explosion Limit): not applicable

UEL (Upper Explosive Limit): not applicable

Vapour pressure: No data available
Vapour density: No data available

Density: at 25 °C: approx. 0.9 g/mL

Water solubility: insoluble

Partition coefficient: n-octanol/water:

No data available

Auto-ignition temperature:

No data available

Decomposition temperature: Measurements taken at temperatures exceeding 150 °C have revealed that a small

quantity of formaldehyde splits off through oxidative decomposition.

Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory

system at breathing concentration less than one part per million (1ppm).

Viscosity, kinematic: at 25 °C: approx. 3 mm²/s

Explosive properties:

No data available
Oxidizing characteristics:

No data available

9.2 Other information

Additional information: No data available

# **SECTION 10: Stability and reactivity**

# 10.1 Reactivity

Refer to subsection "Possilbility of hazardous reactions".



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

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Date of print: 4/12/2023

Revision date: 6/11/2023

10.0

9.0

en-GB

Version:

Language:

Replaces version:

# Kryo 60

Material number LZB x02 Page: 6 of

# 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 direct sunlight. Keep away from sources of ignition and heat. Take precautionary measures against static discharges.

### 10.5 Incompatible materials

oxidizing agents.

#### 10.6 Hazardous decomposition products

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

Thermal decomposition: Measurements taken at temperatures exceeding 150 °C have revealed that a small quantity of

formaldehyde splits off through oxidative decomposition.

Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing

concentration less than one part per million (1ppm).

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

Acute toxicity: ATE oral: > 5000 mg/kg

ATE dermal: > 2000 mg/kg

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.

 $Sensitis ation \ to \ the \ respiratory \ tract: \ Based \ on \ available \ data, \ the \ classification \ criteria \ are \ not \ met.$ 

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.

 $\label{lem:carcinogenicity: Based on available data, the classification criteria are not met. \\$ 

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

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: Based on available data, the classification criteria are not met.



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

Kryo 60

Material number LZB x02 Page: 7 of

# **SECTION 12: Ecological information**

#### 12.1 Toxicity

Aquatic toxicity: Based on available data, the classification criteria are not met. No harmful effect in the area of water

solubility. According to current data, no harmful effects are expected with release to sewage treatment

facility.

LC50/EC50/IC50/LL50/EL50 > 100 mg/L (By analogy)

### 12.2 Persistence and degradability

Further details: No data available

#### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

No data available

# 12.4 Mobility in soil

No data available

# 12.5 Results of PBT and vPvB assessment

No data available

#### 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: 07 02 17 = waste containing silicones

Recommendation: Special waste. Dispose of waste according to applicable legislation.

**Package** 

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as

the substance itself.

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

Revision date: 6/11/2023

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9.0

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Replaces version: 9.0
Language: en-GB
Date of print: 4/12/2023

Revision date: 6/11/2023

Kryo 60

Material number LZB x02 Page: 8 of

### 14.4 Packing group

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

#### 14.5 Environmental hazards

Marine pollutant:

#### 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:

Contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: Dodecamethylcyclohexasiloxane (CAS 540-97-6)

# 15.2 Chemical Safety Assessment

No data available

### **SECTION 16: Other information**

#### **Further information**

Wording of the H-phrases under paragraph 2 and 3:

EUH210 = Safety data sheet available on request.



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

Kryo 60

Material number LZB x02 Page: 9 of

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

ATE: Acute toxicity estimate 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%

EL50: Effective loading rate 50%

EN: European Standard

EQ: Excepted quantities

IATA: International Air Transport Association

IATA-DGR: Internalional Air Transport Associalion – Dangerous Goods Regulalions

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

LEL: Lower Explosion Limit

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

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

SVHC: Substance of very high concern
TRGS: Technical Rules for Hazardous Substances

TSCA: Toxic Substance Control Act

UN: United Nations

vPvB: Very persistent and very bioaccumulative

Reason of change: Changes in section 3:

Composition/information on ingredients

General revision

Date of first version: 22/10/2012

#### 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.

Revision date: 6/11/2023

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