

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : DIRKO

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

##### 1.2.1. Relevant identified uses

Intended for general public  
Use of the substance/mixture : sealants

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

ElringKlinger AG  
Max-Eyth-Straße 2  
72581 Dettingen/Erms  
Germany

Information contact: E-mail: det.iam.sdb@elringklinger.com

Safety Data Sheet: DLAC Dienstleistungsagentur Chemie GmbH, E-mail: sds@dlac-gmbh.de

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
Germany	Giftinformationszentrum (GIZ-Nord) Zentrum Pharmakologie und Toxikologie der Universität Göttingen	Robert-Koch Strasse 40 D-37075 Göttingen	+49 551 19240 (German/English)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Not classified

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

EUH phrases : EUH208 - Contains 2-butanone oxime(96-29-7). May produce an allergic reaction  
EUH210 - Safety data sheet available on request

#### 2.3. Other hazards

PBT: not relevant - no registration required

vPvB: not relevant - no registration required

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Limestone	(CAS No) 1317-65-3 (EC no) 215-279-6	25 - 50	Not classified
silicon dioxide	(CAS No) 112945-52-5	< 10	Not classified
2-butanone oxime	(CAS No) 96-29-7 (EC no) 202-496-6 (EC index no) 616-014-00-0	< 1	Carc.Cat.3; R40 Xn; R21 Xi; R41 R43

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2-butanone oxime	(CAS No) 96-29-7 (EC no) 202-496-6 (EC index no) 616-014-00-0	< 1	Acute Tox. 4 (Dermal), H312 Eye Dam. 1, H318 Skin Sens. 1, H317 Carc. 2, H351

Full text of R- and H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Remove/Take off immediately all contaminated clothing. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow victim to breathe fresh air. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : Wipe off dry product from skin. Wash with plenty of soap and water. The product is not considered to be irritating to the skin.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Drink plenty of water as a precaution. Do NOT induce vomiting. Get medical advice/attention if you feel unwell.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

### 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 : Making extinguishing agents environment-friendly. Carbon dioxide. extinguishing powder. Water spray. For a significant fire : alcohol resistant foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

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

- Hazardous decomposition products in case of fire : Carbon dioxide. Carbon monoxide. Nitrous fumes.

### 5.3. Advice for firefighters

- Firefighting instructions : Prevent fire-fighting water from entering environment.
- Protection during firefighting : Use a self-contained breathing apparatus and also a protective suit.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Provide adequate ventilation.

#### 6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.

### 6.2. Environmental precautions

No particular/specific measures required.

### 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. Use appropriate ventilation.

### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Remove contaminated clothes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. When using do not eat, drink or smoke.

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

Storage conditions : Keep container tightly closed. Store in a dry place. Store in a closed container. Store in a cool, well-ventilated place.

Incompatible materials : Direct sunlight. Heat sources.

Storage temperature : 15 - 25 °C

Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

### 7.3. Specific end use(s)

sealants.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

2-butanone oxime (96-29-7)		
Ireland	Local name	Methyl ethyl ketoxime
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	3 ppm
Ireland	OEL (15 min ref) (mg/m <sup>3</sup> )	33 mg/m <sup>3</sup>
Ireland	OEL (15 min ref) (ppm)	10 ppm

  

Limestone (1317-65-3)		
United Kingdom	Local name	Calcium carbonate
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> inhalable dust 4 mg/m <sup>3</sup> respirable 4 mg/m <sup>3</sup> Limestone, respirable 10 mg/m <sup>3</sup> Limestone, total inhalable 4 mg/m <sup>3</sup> Marble, respirable 10 mg/m <sup>3</sup> Marble, total inhalable

### 8.2. Exposure controls

Hand protection : Wear suitable gloves. (EN 374).

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing. (DIN EN 13034).

Respiratory protection : Not necessary with sufficient ventilation.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Paste.

Colour : Black. Grey. Beige.

Odour : characteristic.

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : > 200 °C

Auto-ignition temperature : Not easily combustible

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

Density : > 1 g/cm<sup>3</sup>

Solubility : Water: practically insoluble

Log Pow : No data available

Viscosity, kinematic : No data available

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## Safety Data Sheet

according to Regulation (EC) No. 453/2010

Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No.
Explosive limits	: No data available

### 9.2. Other information

VOC content	: 1 %
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

At high temperatures : Fire/explosion hazard.

### 10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

### 10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

### 10.4. Conditions to avoid

Open flame. Heat sources.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

Carbon dioxide. In case of fire: Carbon monoxide. Nitrous fumes.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
	In case of repeated or prolonged exposure :
	Skin rash/inflammation

2-butanone oxime (96-29-7)	
LD50 oral rat	2326 mg/kg (OECD 401)
LD50 dermal rat	> 2000 mg/kg
LD50 dermal rabbit	> 1000 mg/kg (OECD 402)
LC50 inhalation rat (Vapours - mg/l/4h)	4,83 mg/l/4h (OECD 403)

Skin corrosion/irritation	: Not classified
	Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
	Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
	Based upon available preparation data and bridging principles, classification criteria are not met
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
	Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
	Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
	Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
	Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
	Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

2-butanone oxime (96-29-7)	
LC50 fish	> 100 mg/l 96 h Oryzias latipes (OECD 203)

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according to Regulation (EC) No. 453/2010

### 2-butanone oxime (96-29-7)

EC50 daphnia	201 mg/l 48 h Daphnia magna (OECD 202)
ErC50 algae	11,8 mg/l 72 h Scenedesmus sp. (OECD 201)
NOEC chronic algae	2,56 mg/l 72 h Scenedesmus sp. (OECD 201)

### 12.2. Persistence and degradability

#### DIRKO

Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

#### DIRKO

Bioaccumulative potential	Not established.
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### 2-butanone oxime (96-29-7)

BCF fish	0,5 - 5,8 42 d Cyprinus carpio (OECD 305)
Log Kow	0,63 (OECD 107)

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

#### DIRKO

PBT: not relevant - no registration required
vPvB: not relevant - no registration required

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods	: Dispose of this material and its container at hazardous or special waste collection point. Do not empty into drains.
Waste disposal recommendations	: Empty the packaging completely prior to disposal. When totally empty, containers are recyclable like any other packing.
European List of Waste (LoW) code	: 08 00 00 - WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS 08 04 00 - wastes from MFSU of adhesives and sealants (including waterproofing products) 08 04 09* - waste adhesives and sealants containing organic solvents or other dangerous substances 08 04 10 - waste adhesives and sealants other than those mentioned in 08 04 09

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

### 14.1. UN number

Not regulated for transport

### 14.2. UN proper shipping name

Not applicable

### 14.3. Transport hazard class(es)

Not applicable

### 14.4. Packing group

Not applicable

### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

No additional information available

#### 14.6.2. Transport by sea

No additional information available

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according to Regulation (EC) No. 453/2010

### 14.6.3. Air transport

No additional information available

### 14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

Contains no substances with Annex XVII restrictions

DIRKO is not on the REACH Candidate List

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 1 %

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out

## SECTION 16: Other information

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

Abbreviations and acronyms : RID - International Rule for Transport of Dangerous Substances by Railway. ICAO - International Civil Aviation Organization. ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road. IMDG - International Maritime Code for Dangerous Goods. IATA - International Air Transport Association. GHS - Globally Harmonised System. CAS - Chemical Abstracts Service. VOC - Volatile organic compounds. LD50/LC50 - Lethal Dose/Lethal Concentration, 50 percent.

Other information : None.

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Sens. 1	Sensitisation — Skin, category 1
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H351	Suspected of causing cancer
R21	Harmful in contact with skin
R40	Limited evidence of a carcinogenic effect
R41	Risk of serious damage to eyes
R43	May cause sensitisation by skin contact
Xi	Irritant
Xn	Harmful

*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*