

DIRKO HTSafety Data Sheet according to Regulation (EU) No. 2015/830

Date of issue: 09/04/2014



Revision date: 14/12/2018

Version: 3.2

(German/English)

Product form	: Mixture		
Product name	: DIRKO HT		
I.2. Relevant	identified uses of the substance or mixture a	nd uses advised against	
I.2.1.Relevantntended for generaJse of the substand	•		
I.2.2. Uses adv No additional inform	rised against nation available		
ElringKlinger AG Max-Eyth-Straße 2 72581 Dettingen/Er nformation contact Safety Data Sheet:		nail: sds@dlac-gmbh.de	
Country	Organisation/Company	Address	Emergency number
Germany	Giftinformationszentrum (GIZ-Nord) Zentrum Pharmakologie und Toxikologie der Univ	ersität Göttingen D-37075 Göttingen	+49 551 19240 (German/English)

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulati	n (EC) No. 1272/2008 [CLP]
EUH phrases	: EUH210 - Safety data sheet available on request
2.3. Other hazards	
DDT: not valoused in a vanistration	

PBT: not relevant - no registration required

vPvB: not relevant - no registration required

Not applicable

3.2. **Mixtures**

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Diiron trioxide	(CAS No) 1309-37-1 (EC No) 215-168-2 (REACH-No) 01-2119457614-35	20 - 30	Not classified
Silicon dioxide	(CAS No) 112945-52-5	1 - 5	Not classified
Triacetoxyethylsilane	(CAS No) 17689-77-9 (EC No) 241-677-4 (REACH-No) 01-2119881778-15	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 EUH014
Methylsilanetriyl triacetate	(CAS No) 4253-34-3 (EC No) 224-221-9 (REACH-No) 01-2119962266-32	< 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 EUH014

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Name	Product identifier	Specific concentration limits according Expert judgment
Triacetoxyethylsilane	(CAS No) 17689-77-9 (EC No) 241-677-4 (REACH-No) 01-2119881778-15	(10 =< C < 25) Skin Irrit. 2, H315 (10 =< C < 25) Eye Irrit. 2, H319 (C >= 25) Skin Corr. 1B, H314
Methylsilanetriyl triacetate	(CAS No) 4253-34-3 (EC No) 224-221-9 (REACH-No) 01-2119962266-32	(10 =< C < 25) Skin Irrit. 2, H315 (10 =< C < 25) Eye Irrit. 2, H319 (25 >=) Skin Corr. 1C, H314

Full text of 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 effect	cts, 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 medica	l 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 su	bstance or mixture
Hazardous decomposition products in case of	: Carbon dioxide. Carbon monoxide.
fire	
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 mea	sures
6.1. Personal precautions, protective eq	uipment 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	: Use personal protective equipment as required.
Protective equipment	
6.2. Environmental precautions	
No particular/specific measures required.	
6.3. Methods and material for containme	
Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
6.4. Reference to other sections	
Concerning personal protective equipment to us	e, 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.

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7.2. Conditions for safe storage, inclu	iding any incompatibilities
Storage conditions	: Keep container tightly closed. Store in a dry place. 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** Diiron trioxide (1309-37-1) United Kingdom Local name Iron oxide, fume (as Fe) WEL TWA (mg/m³) United Kingdom 5 mg/m³ United Kingdom WEL STEL (mg/m³) 10 mg/m³ Ireland Iron oxide, fume (as Fe) Local name OEL (8 hours ref) (mg/m³) Ireland 5 mg/m³ Ireland OEL (15 min ref) (mg/m³) 10 mg/m³ Silicon dioxide (-) United Kingdom Local name Silica, amorphous 6 mg/m³ inhalable dust United Kingdom WEL TWA (mg/m³) 2.4 mg/m³ respirable Silica, amorphous Ireland Local name Ireland OEL (8 hours ref) (mg/m³) 6 mg/m³ inhalable dust 2.4 mg/m³ respirable

Exposure limit values for the other components

Acetic acid % (64-19-7)		
EU	IOELV TWA (mg/m ³)	25 mg/m ³
EU	IOELV TWA (ppm)	10 ppm
EU	IOELV STEL (mg/m ³)	50 mg/m ³
EU	IOELV STEL (ppm)	20 ppm
Ireland	Local name	Acetic acid
Ireland	OEL (8 hours ref) (mg/m ³)	25 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	10 ppm
Ireland	OEL (15 min ref) (mg/m ³)	50 mg/m ³
Ireland	OEL (15 min ref) (ppm)	20 ppm
Ireland	Notes (IE)	IOELV
Malta	Local name	Acetic acid
Malta	OEL TWA (mg/m³)	25 mg/m ³
Malta	OEL TWA (ppm)	10 ppm
Malta	OEL (15 min ref) (mg/m ³)	50 mg/m ³
Malta	OEL (15 min ref) (ppm)	20 ppm
On contact with humidity, releas	es : Acetic acid	
Additional information	: Decomposes on exposure to water (n	noisture)

8.2. Exposure controls	
Hand protection	: Wear suitable gloves. (EN 374). Protective gloves made of rubber. Nitrile rubber. Butyl rubber. Latex. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
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 C	chemical properties	
Physical state	: Liquid	
Appearance	: Paste	
Colour	: Red. Brown.	
Odour	: Characteristic	
Odour threshold	: No data available	
рН	: No data available	

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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	:	> 151 °C
Auto-ignition temperature	:	Not applicable
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	:	1.3 g/cm ³
Solubility	:	Water: Not miscible
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	Product is not explosive (EEC A.14).
Oxidising properties	:	No data available
Explosive limits	:	No data available
9.2. Other information		

VOC content	: 0%	
SECTION 10: Stability and reactivity		
10.1. Reactivity		
No dangerous reactions known under normal co	nditions of use.	
10.2. Chemical stability		
Stable under use and storage conditions as reco	mmended in section 7.	
10.3. Possibility of hazardous reactions		
Refer to section 10.1 on Reactivity.		
10.4. Conditions to avoid		
None known		
10.5. Incompatible materials		
None known.		
10.6. Hazardous decomposition products		
In case of fire: Carbon monoxide. Carbon dioxide	e. On contact with humidity, releases: Acetic acid.	
SECTION 11: Toxicological informat	ion	
11.1. Information on toxicological effects		
Acute toxicity	: Not classified	
	Based on available data, the classification criteria are not met	
Skin corrosion/irritation	: Not classified	
Cariava ava domogo/irritation	Based on available data, the classification criteria are not met : Not classified	
Serious eye damage/irritation	Based on available data, the classification criteria are not met	
Respiratory or skin sensitisation	: Not classified	
	Based on available data, the 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	
Specific target organ toxicity (repeated	Based on available data, the classification criteria are not met Not classified	
exposure)	Based on available data, the classification criteria are not met	

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according to Regulation (EU) No. 2015/830	
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met : Based on available data, the classification criteria are not met.
SECTION 12: Ecological information	
12.1. Toxicity	
No additional information available	
12.2. Persistence and degradability	
DIRKO HT	
Persistence and degradability	Not established.
12.3. Bioaccumulative potential DIRKO HT	
Bioaccumulative potential	Not established.
12.4. Mobility in soil No additional information available	
12.5. Results of PBT and vPvB assessme	an
DIRKO HT PBT: not relevant - no registration required	
vPvB: not relevant - no registration required	
12.6. Other adverse effects No additional information available	
SECTION 13: Disposal consideration	1S
13.1. Waste treatment methods	
Regional legislation (waste) Waste treatment methods	Dispose in a safe manner in accordance with local/national regulations.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 Other information	: No
	: 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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14.6.3. Air transport

No additional information available

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

Not applicable

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 substance on the REACH candidate list	
Contains no F	REACH Annex XIV substances	
VOC content	: (0 %
15.1.2. Nat	tional regulations	
	information available	
15.2. Che	emical safety assessment	
Chemical safe	ety 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.
Changes com	npared to the previous version :	Updated: Revision date
Abbreviations	s 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	
BCF	Biological concentration factor	
DNEL	Derived-No Effect Level	
EC50	Median effective concentration	
ΙΑΤΑ	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
NOEC	No-Observed Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
LOAEL	Lowest Observed Adverse Effect Level	
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	
STP	Sewage treatment plant	
vPvB	Very Persistent and Very Bioaccumulative	
Full text of H-	and EUH-phrases:	
		Acute toxicity (oral), Category 4
Eye Dam. 1		Serious eye damage/eye irritation, Category 1
Eye Irrit. 2		Serious eye damage/eye irritation, Category 2
Skin Corr. 1B		Skin corrosion/irritation, Category 1B
Skin Corr. 1C		Skin corrosion/irritation, Category 1C
Skin Irrit. 2		Skin corrosion/irritation, Category 2
H302		Harmful if swallowed
H314		Causes severe skin burns and eye damage
H315		Causes skin irritation
11010		

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.

Causes serious eye damage

Causes serious eye irritation

Safety data sheet available on request

Reacts violently with water

H318

H319

EUH014

EUH210