1. Identification

**Product identifier**
Dirko HT

**Details of the supplier of the safety data sheet**
Elring Klinger AG
Company name: Elring Klinger AG
Street: Max-Eyth-Straße 2
Place: D-72581 Dettingen/Erms
Responsible Department: 1ET
det.iam.sdb@elringklinger.com
Emergency phone number:
Universitätsklinikum Freiburg
Vergiftungs-Informations-Zentrale
+49 761270-43600
+49 761270-44570

2. Hazard(s) identification

**Classification of the chemical**
Hazard categories:
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Causes skin irritation
Causes serious eye irritation

**Label elements**
Signal word: Warning
Pictograms: exclamation mark

**Hazard statements**
Causes skin irritation
Causes serious eye irritation

**Precautionary statements**
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
If skin irritation occurs: Get medical advice/attention.
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.

**Hazards not otherwise classified**
No data available.

3. Composition/information on ingredients

**Mixtures**
Chemical characterization
Mixture of the following substances with non-hazardous admixtures

**Hazardous components**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>Components</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>4253-34-3</td>
<td>methyltriacetoxysilane</td>
<td>1.4 %</td>
</tr>
<tr>
<td>17689-77-9</td>
<td>triacetoxyethylsilane</td>
<td>1.4 %</td>
</tr>
</tbody>
</table>
Further Information
Contact with moisture (water) liberates acetic acid.

4. First-aid measures

**Description of first aid measures**

**General information**
Take affected person into fresh air.

**After inhalation**
Move to fresh air in case of accidental inhalation of vapours.
In the event of symptoms refer for medical treatment.

**After contact with skin**
Remove mechanically using a cloth or paper.
Flush rests with sufficient amount of water.
Consult a doctor if skin irritation persists.

**After contact with eyes**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Consult a physician.

**After ingestion**
Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.
Seek medical advice immediately.

**Most important symptoms and effects, both acute and delayed**
WARNING!
Irritating to eyes and skin.

OSHA Hazard Communication: This material is considered hazardous by the OSHA Hazard Communication Standard 29CFR 1910.1200.

**Indication of any immediate medical attention and special treatment needed**
Treat symptoms.

5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media**
Alcohol-resistant foam, dry chemical, carbon dioxide (CO2), water-spray.

**Unsuitable extinguishing media**
Full water jet.

**Specific hazards arising from the chemical**
Fire may produce: Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx).

**Special protective equipment and precautions for fire-fighters**
Use breathing apparatus with independent air supply.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective clothing.

**Environmental precautions**
No specific precautions required.

**Methods and material for containment and cleaning up**
Pick up mechanically, avoiding dust, and provide disposal in suitable recipients.

**Reference to other sections**
Refer to section: 8

7. Handling and storage

**Precautions for safe handling**
Advice on safe handling
Ensure adequate ventilation.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion
No specific precautions required.

Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep containers tightly closed in a cool, well-ventilated place.

Further information on storage conditions
Keep away from food, drink and animal feeding stuffs.

8. Exposure controls/personal protection

Control parameters

Exposure controls
Appropriate engineering controls
Refer to section: 7

Protective and hygiene measures
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Avoid contact with eyes, skin or oral tissues.
Remove and wash contaminated clothing before re-use.
Take the usual precautions when handling with chemicals.

Eye/face protection
Safety goggles

Hand protection
Chemical protective gloves (Butyl rubber, Nitrile rubber, Rubber, natural)
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection
Long sleeved clothing.

Respiratory protection
Use suitable breathing apparatus if there is inadequate ventilation. (Multi-purpose filter ABEK)

9. Physical and chemical properties

Information on basic physical and chemical properties
Physical state: Pasty
Color: Red/Brown
Odor: Acetic acid

Changes in the physical state
Melting point/freezing point: n.d.
Initial boiling point and boiling range: n.a.
Flash point: > 151 °C
Density (at 20 °C): 1.3 g/cm³
Water solubility: Slightly miscible

Explosive properties
The product is not explosive.

Oxidizing properties
The product is not self-igniting.

Other information
No data available.

10. Stability and reactivity
Reactivity
No data available.

Chemical stability
Stability: Stable
No data available.

Possibility of hazardous reactions
Hazardous reactions: Will not occur
No hazardous reactions known.

Conditions to avoid
No data available.

Incompatible materials
No data available.

Hazardous decomposition products
No decomposition if stored and applied as directed.
To avoid thermal decomposition, do not overheat.
(>150°C) Possibility of splitting-off of small amounts of formaldehyde.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry
Skin and eye contact, inhalation and ingestion.

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

Irritation and corrosivity
Causes skin irritation
Causes serious eye irritation

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

Specific target organ toxicity (STOT) - single exposure
Based on available data, the classification criteria are not met.

Severe effects after repeated or prolonged exposure
Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction
Based on available data, the classification criteria are not met.
Carcinogenicity (NTP): Not listed
Carcinogenicity (IARC): Not listed
Carcinogenicity (OSHA): Not listed

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

12. Ecological information

Ecotoxicity
No data available.

Persistence and degradability
Not degradable

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Other adverse effects
No data available.
Further information
Slightly water hazardous.

13. Disposal considerations

Waste treatment methods

Advice on disposal
Can be incinerated, when in compliance with local regulations.
Where possible recycling is preferred to disposal.

Contaminated packaging
Empty receptacle completely. Dispose like the product.

14. Transport information

US DOT 49 CFR 172.101; Marine transport (IMDG); Air transport (ICAO)

UN number:
Non hazardous material as defined by the transport regulations.

UN proper shipping name:
Non hazardous material as defined by the transport regulations.

Transport hazard class(es):
Non hazardous material as defined by the transport regulations.

Packing group:
Non hazardous material as defined by the transport regulations.

Environmental hazards
Non hazardous material as defined by the transport regulations.

Special precautions for user
Non hazardous material as defined by the transport regulations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Non hazardous material as defined by the transport regulations.

15. Regulatory information

U.S. Regulations

National Inventory TSCA
All of the components are listed on the TSCA inventory.

SARA
To the best of our knowledge this product contains no toxic chemicals subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

16. Other information

Hazardous Materials Information Label (HMIS)
Health: 1
Flammability: 0
Physical Hazard: 0

NFPA Hazard Ratings
Health: 1
Flammability: 0
Reactivity: 0

Changes
Revision date: 19.11.2014
Revision No: 1,2
Changes in chapter: -
Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
DOT = Department of Transportation
TDG = Transport of Dangerous Goods

GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Other data

National and local regulations concerning chemicals shall be observed.

Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult Prescribing Information and expert information), but to release of major amounts in case of accidents and irregularities.
The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.
The delivery specifications are contained in the corresponding product sheet.
This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.
(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)