

**Material Safety Data Sheet**  
According to 91/155 EEC

Printing date 26.05.2005

Reviewed on 26.05.2005

**1 Identification of the substance/preparation and of the company/undertaking**

· **Product details**

· **Trade name:** KS 143

· **Application of the substance / the preparation** Glue/ Sizing agent

· **Manufacturer/Supplier:**

Hertel Rubber Products

Industrieweg 16

NL 8263 AD Kampen

Tel: 0031 (0) 38 339 33 33

Fax: 0031 (0) 38 331 61 80









· **Further information obtainable from:** Tel: 0031 (0) 38 339 33 33

**2 Composition/information on ingredients**

· **Chemical characterization**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 110-82-7 EINECS: 203-806-2	cyclohexane  Xn,  F,  N; R 11-38-50/53-65-67	2.5-10%
CAS: 79-20-9 EINECS: 201-185-2	methyl acetate  Xi,  F; R 11-36-66-67	2.5-10%
CAS: 9016-87-9	diphenylmethanediisocyanate, isomeres and homologues  Xn; R 20-36/37/38-42/43	2.5-10%
	tris(nonylphenol)phosphiet (TNPP)  Xi,  N; R 38-43-50/53	□ 2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

**3 Hazards identification**

· **Hazard description:**



Xn Harmful

F Highly flammable

N Dangerous for the environment

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Has a narcotizing effect.

R 11 Highly flammable.

R 36/38 Irritating to eyes and skin.

R 42/43 May cause sensitisation by inhalation and skin contact.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 67 Vapours may cause drowsiness and dizziness.

Contains isocyanates. See information supplied by the manufacturer

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

**4 First-aid measures**

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

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- In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

### 5 Fire-fighting measures

- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**  
Water  
Water with full jet
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**  
Prevent seepage into sewage system, workpits and cellars.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

### 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.

### \* 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Ingredients with limit values that require monitoring at the workplace:**

#### 110-82-7 cyclohexane (2.5-10%)

OES	Short-term value: 1050 mg/m <sup>3</sup> , 300 ppm
	Long-term value: 350 mg/m <sup>3</sup> , 100 ppm

#### 79-20-9 methyl acetate (2.5-10%)

OES	Short-term value: 770 mg/m <sup>3</sup> , 250 ppm
	Long-term value: 616 mg/m <sup>3</sup> , 200 ppm

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### 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues (2.5-10%)

MEL Short-term value: 0.07 mg/m<sup>3</sup>  
 Long-term value: 0.02 mg/m<sup>3</sup>  
 Sen; as -NCO

- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.
- **Respiratory protection:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

### · General Information

**Form:** Fluid  
**Colour:** Amber coloured  
**Odour:** Characteristic

### · Change in condition

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 57°C

· **Flash point:** -18°C

· **Ignition temperature:** 260.0°C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

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· <b>Explosion limits:</b>	
Lower:	1.2 Vol %
Upper:	16.0 Vol %
· <b>Vapour pressure at 20°C:</b>	220.0 hPa
· <b>Density at 20°C:</b>	1.00 g/cm <sup>3</sup>
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Viscosity:</b>	
Dynamic at 20°C:	5000 mPas
· <b>Solvent content:</b>	
Organic solvents:	18.0 %
· <b>Solids content:</b>	82.0 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions:** No dangerous reactions known.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

**110-82-7 cyclohexane**

Oral	LD50	12705 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** Irritant to skin and mucous membranes.

· **on the eye:** Irritating effect.

· **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

### 12 Ecological information

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

08 04 09	waste adhesives and sealants containing organic solvents or other dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 33
- **UN-Number:** 1133
- **Packaging group:** III
- **Hazard label** 3
- **Description of goods:** 1133 ADHESIVES, special provision 640H

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1133
- **Label** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Proper shipping name:** ADHESIVES

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1133
- **Label** 3
- **Packaging group:** III
- **Proper shipping name:** ADHESIVES

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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· **Code letter and hazard designation of product:**



Xn Harmful  
F Highly flammable  
N Dangerous for the environment

· **Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomeres and homologues

· **Risk phrases:**

- 11 Highly flammable.  
36/38 Irritating to eyes and skin.  
42/43 May cause sensitisation by inhalation and skin contact.  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
67 Vapours may cause drowsiness and dizziness.

· **Safety phrases:**

- 9 Keep container in a well-ventilated place.  
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).  
24/25 Avoid contact with skin and eyes.  
37 Wear suitable gloves.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
57 Use appropriate container to avoid environmental contamination.

· **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

· **National regulations:**

· **Technical instructions (air):**

Class	Share in %
I	5.0
NK	19.8

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant R-phrases**

- 11 Highly flammable.  
20 Harmful by inhalation.  
36 Irritating to eyes.  
36/37/38 Irritating to eyes, respiratory system and skin.  
38 Irritating to skin.  
42/43 May cause sensitisation by inhalation and skin contact.  
43 May cause sensitisation by skin contact.  
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
65 Harmful: may cause lung damage if swallowed.  
66 Repeated exposure may cause skin dryness or cracking.  
67 Vapours may cause drowsiness and dizziness.

· **\* Data compared to the previous version altered.**

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