

# Material Safety Data Sheet

According to 91/155 EEC

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

- **Product details**
- **Trade name:** FRIATHERM-PRIMER
- **Application of the substance / the preparation** Cleaning agent/ Cleaner
- **Manufacturer/Supplier:**  
Verhagen-Herlitzius B.V.  
Postbus 20  
NL-5730 AA Mierlo , Holland  
Tel.:31-(0)492-663235
- **Further information obtainable from:** laboratory
- **Information in case of emergency:** Tel.:31-(0)492-663235

## \* 2 Composition/information on ingredients

- **Chemical characterization:**  

CAS No.	Description
	methyl ethyl ketone
- **Identification number(s)**
- **EINECS Number:** 201-159-0
- **EU Number:** 606-002-00-3

## 3 Hazards identification

- **Hazard description:**  
Xi Irritant  
F Highly flammable
- **Information concerning to particular hazards to man and environment:**  
At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.  
Has a narcotizing effect.  
R 11 Highly flammable.  
R 36 Irritating to eyes.  
R 66 Repeated exposure may cause skin dryness or cracking.  
R 67 Vapours may cause drowsiness and dizziness.

## 4 First-aid measures

- **After inhalation:**  
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
Do not induce vomiting; call for medical help immediately.

## 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
Water haze  
Alcohol resistant foam  
Fire-extinguishing powder  
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Protective equipment:** Mount respiratory protective device.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## **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.  
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.

## **7 Handling and storage**

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- **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 receptacle 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:**

78-93-3 methyl ethyl ketone  
OES: Short-term value: 899 mg/m<sup>3</sup>; , 300 ppm  
Long-term value: 600 mg/m<sup>3</sup>; , 200 ppm  
IOELV, Sk,

- **Additional information:**  
The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
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.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
Protective gloves  
Solvent resistant 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.

- **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.

- **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

PVC or PE gloves

- **Eye protection:** Tightly sealed goggles

- **Body protection:** Solvent resistant protective clothing

\* **9 Physical and chemical properties**

- **General Information**

- **Form:** Fluid

- **Colour:** Colourless

- **Odour:** Pleasant

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	<u>Value/Range</u>	<u>Unit</u>	<u>Method</u>
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- **Change in condition**

- **Melting point/Melting range:**

-86.3°C

- **Boiling point/Boiling range:**

79°C

- **Flash point:**

- **Ignition temperature:**

514°C

- **Danger of explosion:**

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

- **Lower:**

1.8 Vol %

- **Upper:**

11.5 Vol %

- **Vapour pressure:** at 20°C

105 hPa

- **Density:** at 20°C

0.81 g/cm<sup>3</sup>;

- **Solubility in / Miscibility with**

- **water:** at 20°C

290 g/l

- **Viscosity:**

- **Dynamic:** at 20°C

1 mPas

**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:**

Danger of forming toxic pyrolysis products.

**11 Toxicological information**

- **Acute toxicity:**

LD/LC50 values relevant for classification:

78-93-3 methyl ethyl ketone

Oral: LD50: 3300 mg/kg (rat)

Dermal: LD50: 5000 mg/kg (rbt)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** Irritating effect.

- **Sensitization:** No sensitizing effects known.

\***12 Ecological information**

- **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

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

### **13 Disposal considerations**

- **Product:**

- **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packaging:**

- **Recommendation:**

Disposal must be made according to official regulations.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

### **\*14 Transport information**

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

- **ADR/RID class:** 3 (F1) Flammable liquids.

- **Danger code (Kemler):** 33

- **UN-Number:** 1193

- **Packaging group:** II

- **Hazard label** 3

- **Description of goods:** 1193 ETHYL METHYL KETONE (METHYL ETHYL KETONE)

- **Maritime transport IMDG:**

- **IMDG Class:** 3

- **UN Number:** 1193

- **Label** 3

- **Packaging group:** II

- **EMS Number:** F-E, S-D

- **Marine pollutant:** No

- **Proper shipping name:** ETHYL METHYL KETONE (METHYL ETHYL KETONE)

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

- **ICAO/IATA Class:** 3

- **UN/ID Number:** 1193

- **Label** 3

- **Packaging group:** II

- **Proper shipping name:** ETHYL METHYL KETONE (METHYL ETHYL KETONE)

- **Remarks:**

Not submit to ADR/VLG in small packing in original outside packing with UN number placed inside diamond shaped label (Limited quantity)

### **15 Regulatory information**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

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

Xi Irritant F Highly flammable

- **Risk phrases:**

11 Highly flammable.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

2 Keep out of the reach of children.

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition – No smoking.

24/25 Avoid contact with skin and eyes.

46 If swallowed, seek medical advice immediately and show this container or label.

51 Use only in well-ventilated areas.

- **National regulations:**

- **Technical instructions (air):**

Class Share in %

III 50-100

- **Waterhazard class:**

Water hazard class 1 (Assessment by list): 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.

- **Department issuing MSDS:** laboratory

- **Contact:** M.Dijsselbloem

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