

# Material Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 10/16/2002

Reviewed on 10/15/2002

### 1 Identification of substance

- **Product details**
- **Trade name: THERMOSOFT LACQUER**
- **Application of the substance / the preparation** Lacquer
- **Manufacturer/Supplier:**  
DREVE-OTOPLASTIK GMBH  
Max-Planck-Straße 31  
59423 Unna / Germany  
Tel.: ++49 2303 / 8807-0  
Fax.: ++49 2303 / 82909
- **Information department:**  
Department Research & Development  
Tel.: ++49 2303 / 8807-14/-17/-569
- **Emergency information:** ++49 2303 / 8807-0

### 2 Composition/Data on components

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

80-62-6	methyl methacrylate	25-50%
97-63-2	ethyl methacrylate	10-25%
103-11-7	2-ethylhexyl acrylate	2.5-10%
868-77-9	2-hydroxyethyl methacrylate	2.5-10%
	Photoinitiatorblend	≤ 2.5%

### 3 Hazards identification

- **Hazard description:**



Xi Irritant  
F Highly flammable

- **Information pertaining to particular dangers for man and environment:**

R 11 Highly flammable.  
R 36/37/38 Irritating to eyes, respiratory system and skin.  
R 43 May cause sensitization by skin contact.

- **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



Health = 3  
Fire = 3  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



HEALTH 3 Health = \*3  
FIRE 3 Fire = 3  
REACTIVITY 0 Reactivity = 0



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## 4 First aid measures

- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Immediately wash with water and soap and rinse thoroughly.  
Immediately rinse with water.
- **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.  
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).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Avoid contact with skin and eyes.
- **Information about protection against explosions and fires:**  
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.
- **Class according to regulation on flammable liquids:** A I

## 8 Exposure controls and personal protection

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

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· **Components with limit values that require monitoring at the workplace:**

**80-62-6 methyl methacrylate**

PEL	410 mg/m <sup>3</sup> , 100 ppm
REL	410 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 410 mg/m <sup>3</sup> , 100 ppm Long-term value: 205 mg/m <sup>3</sup> , 50 ppm
SEN	

· **Additional information:** The lists that were valid during the creation 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.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

· **General Information**

<b>Form:</b>	Fluid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	101°C (214°F)

· **Flash point:** 10°C (50°F)

· **Ignition temperature:** 245°C (473°F)

· **Auto igniting:** Product is not selfigniting.

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

· **Explosion limits:**

<b>Lower:</b>	1.8 Vol %
<b>Upper:</b>	12.5 Vol %

· **Vapor pressure at 20°C (68°F):** 47 hPa

· **Density at 20°C (68°F):** 1.024 g/cm<sup>3</sup>  
Not determined.

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- |  |                                   |
|--|-----------------------------------|
| · <b>Solubility in / Miscibility with Water:</b> | Not miscible or difficult to mix. |
| · <b>Viscosity:</b><br>Dynamic at 23°C (73°F):   | 0.03 Pas                          |
| · <b>Solvent content:</b><br>Organic solvents:   | 0.0 %                             |

## 10 Stability and reactivity

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

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant.

## 12 Ecological information

- **General notes:**  
Water hazard class 1 (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.

## 13 Disposal considerations

- **Product:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- **DOT regulations:**



- **Hazard class:** 3

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Trade name: THERMOSOFT LACQUER

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· Identification number: UN1247  
 · Packing group: II  
 · Proper shipping name (technical name): METHYL METHACRYLATE MONOMER, STABILIZED  
 · Label: 3

· Land transport ADR/RID (cross-border):



· ADR/RID class: 3 Flammable liquids  
 · Danger code (Kemler): 339  
 · UN-Number: 1247  
 · Packaging group: II  
 · Description of goods: 1247 METHYL METHACRYLATE MONOMER, STABILIZED

· Maritime transport IMDG:



· IMDG Class: 3  
 · UN Number: 1247  
 · Label: 3  
 · Packaging group: II  
 · EMS Number: 3-07  
 · Marine pollutant: No  
 · Proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED

· Air transport ICAO-TI and IATA-DGR:



· ICAO/IATA Class: 3  
 · UN/ID Number: 1247  
 · Label: 3  
 · Packaging group: II  
 · Proper shipping name: METHYL METHACRYLATE MONOMER, STABILIZED

## 15 Regulations

· Product related hazard informations:

The product has been classified and marked in accordance with directives on hazardous materials.

· Hazard symbols:



Xi Irritant  
 F Highly flammable

· Hazard-determining components of labelling:

methyl methacrylate

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ethyl methacrylate  
2-ethylhexyl acrylate  
2-hydroxyethyl methacrylate

· **Risk phrases:**

11 Highly flammable.  
36/37/38 Irritating to eyes, respiratory system and skin.  
43 May cause sensitization by skin contact.

· **Safety phrases:**

9 Keep container in a well-ventilated place.  
24 Avoid contact with skin.  
37 Wear suitable gloves.  
60 This material and its container must be disposed of as hazardous waste.

· **National regulations:**

· **Classification according to VbF:** A I

· **Technical instructions (air):**

Class	Share in %
II	28.4

· **Water hazard 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.

- **Department issuing MSDS:** Department Research & Development
- **Contact:** Dr. Thomas Veit, Dr. Reiner Altmann, Dr. Georgia Meißner
- **\* Data compared to the previous version altered.**

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