

# msds MICROSTAR®

## New Outline Liquid

### 1 Identification of Substance:

Material Safety Data Sheet

Date: 10-17-2007

Identification of Substance and Product Details

**Trade Name:** New Outline Liquid

### Supplier:

**MICROSTAR®** Dental LLC

1000 Lakes Pkwy.

Lawrenceville, GA 30043

www.microstardental.com

### Emergency Information:

During Normal Business Hours, 1-800-313-6427 or 1-770-339-5757

### 2 Composition/Data on Components:

Chemical characterization

Description:

Liquid based on methacryl acid ester, containing an activator, used for the production of temporary crowns and bridges in dental medicine.

### Dangerous Components

CAS: 80-62-6

EINECS: 201-297-1

methyl methacrylate Xi; R 37/38-43

50-75%

CAS: 142-09-6

EINECS: 205-521-9

n-Hexylmethacrylat Xi; R 36/37/38

2.5-10%

### 3 Hazard Identification::

Hazard description:

Information concerning to particular hazards to man and environment

The product has to be labeled due to the calculation procedure of the "General Classification

guideline for preparations of the EU" in the latest valid version.

R 11 Highly flammable.

R 37/38 Irritating to respiratory system and skin.

R 43 May cause sensitization by skin contact.

Classification system

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

Xi Irritant

F Highly

### 4 First Aid Measures:

General information Immediately remove any clothing soiled by the product.

After inhalation Supply fresh air; consult doctor in case of complaints.

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After skin contact Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact Rinse opened eye for several minutes under running water.

Then consult a doctor.

After swallowing Call a doctor immediately.

### **5 Fire Fighting Measures:**

Suitable extinguishing agents

Carbon dioxide

Fire-extinguishing powder

Foam

Water spray

For safety reasons unsuitable extinguishing agents Water with full jet.

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

### **6 Accidental Release Measures:**

Personal safety precautions:

Ensure adequate ventilation

Wear protective clothing.

Keep away from ignition sources

Measures for environmental protection: 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.

Dispose of the material collected according to regulations.

Additional information: See Section 13 for disposal information.

### **7 Handling and Storage:**

Handling

Information for safe handling:

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Storage

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

Keep receptacle tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from exposure to the light.

Storage class Not determined

Class according to regulation on flammable liquids: A I

## 8 Exposure Controls and Personal Protection Gear :\*\*

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

Ingredients with limit values that require monitoring at the workplace:

80-62-6 methyl methacrylate

OEL Short-term value: 416 mg/m<sub>3</sub>, 100 ppm

Long-term value: 208 mg/m<sub>3</sub>, 50 ppm

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:

- Use suitable respiratory protective device when high concentrations are present.

Protection of hands: Protective gloves.

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 -

Eye protection: Tightly sealed goggles.

## 9 Physical and Chemical Properties:

General Information

Form:

Color:

Odor:

Fluid

Clear

Ester-like

Change in condition:

Melting point/Melting range:

Boiling point/Boiling range:

-48°C

101°C

Flash point: 10°C (DIN 51755)

Ignition temperature: 430°C (DIN 51794)

Self-igniting: Product is not self igniting.

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

Explosion limits:

Lower:

Upper:

2.1 Vol % (Literatur)

12.5 Vol % (Literatur)

Vapor pressure at 20°C: 47 hPa

Density at 20°C: 0.967 g/cm<sub>3</sub>

Solubility in / Miscibility

with

Water:

Not miscible or difficult to mix

pH-value: Not determined

Viscosity:

dynamic:

kinematic:

Not determined

Not determined

Solvent content:

Organic solvents: 0.0 %

Solids content: 0.3 %

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## 10 Stability and Reactivity:

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Materials to be avoided:

In presence of radical formers (e. g. peroxides), deoxidizing substances, and/or heavy metal ions,

polymerization with heat release is possible.

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:

methyl methacrylate LD-50 oral >5000 mg/kg rat (lit.)

LD-50 inhalativ 7093 ppm/4h rat (lit.)

n-Hexylmethacrylat LD-50 oral >5000 mg/kg rat (lit.)

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 the calculation method of the General EU

Classification Guidelines for Preparations as issued in the latest version.

Irritant

## 12 Ecological Information:

Behavior in environmental systems:

Components:

methyl methacrylate Biodegradability: 30,7 %

Time: 28 d

Method: OECD 301 C

Valuation: difficult to decompose

Ecotoxicological effects:

Aquatic toxicity:

Type of test Effective concentration Method Assessment

Toxicity to fish: LC-50: >79 mg/l OECD 203

(MMA) NOEC: 40 mg/l ISO 7346

Time: 96 h EEC84

Species:

Oncorhynchus mykiss

Toxicity to Micro-Organisms ECO: 100 mg/l starting inhibition

Species: of cell growth

(MMA) Pseudomonas putida

General notes:

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

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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.

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

### **14 Transport Information:**

Land transport ADR/RID (cross-border)

ADR/RID class:

Item:

Danger code (Kemler):

UN-Number:

Hazard label

3 Flammable liquids

3b

33

1247

3

Maritime transport IMDG:

• IMDG Class:

• Page: • UN Number:

• Packaging group:

• EMS Number:

• MFAG:

• Marine pollutant:

• Proper shipping name:

3.2

3259

1247

II

3-07

330

No

Methyl methacrylate monomer,  
inhibited, mixture

Air transport ICAO-TI and IATA-DGR:

• ICAO/IATA Class:

• UN/ID Number:

• Packaging group:

• Proper shipping name:

3

1247

II

Methyl methacrylate monomer,  
inhibited, mixture

### **15 Regulations:**

Labeling 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

Hazard-determining components of labeling:

methyl methacrylate

Risk phrases:

11 Highly flammable.

37/38 Irritating to respiratory system and skin.

43 May cause sensitization by skin contact.

Safety phrases:

9 Keep container in a well-ventilated place.

16 Keep away from sources of ignition - No smoking.

24 Avoid contact with skin.

33 Take precautionary measures against static discharges.

37 Wear suitable gloves.

60 This material and its container must be disposed of as hazardous waste.

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National regulations

Classification according to VbF: A I

Technical instructions (air):

Class Share in %

II 50-75

Water hazard class: Water hazard class 2 (Self-assessment): 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

36/37/38 Irritating to eyes, respiratory system and skin.

37/38 Irritating to respiratory system and skin.

43 May cause sensitization by skin contact.

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