

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

## 1 Identification

- **Product identifier**
- **Trade name:** LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST
- **Article number:** S13000-F65
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Electron Microscopy Sciences  
1560 Industry Road  
USA-Hatfield, PA 19440  
Tel: 215-412-8400 Fax: 215-412-8450  
email: sgkcck@aol.com  
www.emsdiasum.com
- **Information department:** Product safety department
- **Emergency telephone number:**  
ChemTrec 1-800-424-9300 Contract CCN7661  
1-703-527-3887

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 1 H310 Fatal in contact with skin.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02



GHS06

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
dimethyl phthalate  
2-Butanone, peroxide
- **Hazard statements**  
Flammable liquid and vapor.  
Toxic if swallowed.  
Fatal in contact with skin.

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 1)

· **Precautionary statements**

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Use explosion-proof electrical/ventilating/lighting/equipment.
- Wear protective gloves / eye protection / face protection.
- Wear protective gloves / protective clothing.
- Ground/bond container and receiving equipment.
- Do not get in eyes, on skin, or on clothing.
- Keep container tightly closed.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- If swallowed: Immediately call a poison center/doctor.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Specific treatment (see on this label).
- Rinse mouth.
- In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.
- Take off immediately all contaminated clothing and wash it before reuse.
- Store locked up.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Dangerous components:**

1338-23-4	2-Butanone, peroxide	25-50%
131-11-3	dimethyl phthalate	25-50%
107-41-5	2-methylpentane-2,4-diol	2.5-10%
78-93-3	METHYL ETHYL KETONE	2.5-10%

US

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 2)

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:** 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. Then consult a doctor.
- **After swallowing:** Do not induce vomiting; immediately call for medical help.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Protect from heat.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 3)

· **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

· **Control parameters**

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

### 1338-23-4 2-Butanone, peroxide

REL Ceiling limit value: 1.5 mg/m<sup>3</sup>, 0.2 ppm

TLV Ceiling limit value: 1.5 mg/m<sup>3</sup>, 0.2 ppm

### 131-11-3 dimethyl phthalate

PEL Long-term value: 5 mg/m<sup>3</sup>

REL Long-term value: 5 mg/m<sup>3</sup>

TLV Long-term value: 5 mg/m<sup>3</sup>

### 107-41-5 2-methylpentane-2,4-diol

REL Ceiling limit value: 125 mg/m<sup>3</sup>, 25 ppm

TLV Ceiling limit value: 121 mg/m<sup>3</sup>, 25 ppm

### 78-93-3 METHYL ETHYL KETONE

PEL Long-term value: 590 mg/m<sup>3</sup>, 200 ppm

REL Short-term value: 885 mg/m<sup>3</sup>, 300 ppm

Long-term value: 590 mg/m<sup>3</sup>, 200 ppm

TLV Short-term value: 885 mg/m<sup>3</sup>, 300 ppm

Long-term value: 590 mg/m<sup>3</sup>, 200 ppm

BEI

· **Ingredients with biological limit values:**

### 78-93-3 METHYL ETHYL KETONE

BEI 2 mg/L

Medium: urine

Time: end of shift

Parameter: MEK

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

· **Exposure controls**

· **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.

Store protective clothing separately.

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

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 4)

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:** Goggles recommended during refilling.

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Characteristic
<b>Odour threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.

· **Flash point:** 58 °C (136 °F)

· **Flammability (solid, gaseous):** Not flammable.

· **Ignition temperature:** 260 °C (500 °F)

· **Decomposition temperature:** Not determined.

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

· **Danger of explosion:** Not determined.

· **Explosion limits:**

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

· **Vapor pressure:** Not determined.

· **Density at 20 °C (68 °F):** 1.084 g/cm<sup>3</sup> (9.046 lbs/gal)

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not determined.

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 5)

<b>Kinematic:</b>	Not determined.
<b>· Solvent content:</b>	
<b>Organic solvents:</b>	3.0 %
<b>VOC content:</b>	3.0 %
	32.5 g/l / 0.27 lb/gl
<b>· Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Toxic  
Very toxic  
Danger through skin absorption.
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7722-84-1	Hydrogen Peroxide Solution, 30%	3
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety Health Administration)**

None of the ingredients is listed.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 6)

- **Additional 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.*
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **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

- |  |                          |
|--|--------------------------|
| <b>· UN-Number</b>                         | UN3269                   |
| <b>· DOT, ADR, IMDG, IATA</b>              |                          |
| <b>· UN proper shipping name</b>           | Polyester resin kit      |
| <b>· DOT</b>                               | 3269 Polyester resin kit |
| <b>· ADR</b>                               | POLYESTER RESIN KIT      |
| <b>· IMDG, IATA</b>                        |                          |
| <b>· Transport hazard class(es)</b>        |                          |
| <b>· DOT</b>                               |                          |
| <br><small>6 3</small>                     |                          |
| <b>· Class</b>                             | 6.1 Toxic substances     |
| <b>· Label</b>                             | 6.1, 3                   |
| <hr style="border-top: 1px dashed #ccc;"/> |                          |
| <b>· ADR</b>                               |                          |
| <br><small>6 3</small>                     |                          |
| <b>· Class</b>                             | 6.1 Toxic substances     |
| <b>· Label</b>                             | 6.1+3                    |
| <hr style="border-top: 1px dashed #ccc;"/> |                          |
| <b>· IMDG</b>                              |                          |
| <br><small>6 3</small>                     |                          |
| <b>· Class</b>                             | 6.1 Toxic substances     |

(Contd. on page 8)

# Safety Data Sheet


acc. to OSHA HCS

Printing date 09/22/2015

Reviewed on 09/22/2015

**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 7)

· <b>Label</b>	6.1/3
· <b>IATA</b>	
	
· <b>Class</b>	6.1 Toxic substances
· <b>Label</b>	6.1 (3)
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	I
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Toxic substances
· <b>Danger code (Kemler):</b>	663
· <b>EMS Number:</b>	F-E,S-D
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	0
· <b>Excepted quantities (EQ)</b>	Code: E5 Maximum net quantity per inner packaging: 1 ml Maximum net quantity per outer packaging: 300 ml
· <b>UN "Model Regulation":</b>	UN3269, Polyester resin kit, 6.1 (3), I

## 15 Regulatory information

· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
· <b>Sara</b>	
· <b>Section 355 (extremely hazardous substances):</b>	
7722-84-1	Hydrogen Peroxide Solution, 30%
· <b>Section 313 (Specific toxic chemical listings):</b>	
131-11-3	dimethyl phthalate
78-93-3	METHYL ETHYL KETONE
· <b>TSCA (Toxic Substances Control Act):</b>	
All ingredients are listed.	
· <b>Proposition 65</b>	
· <b>Chemicals known to cause cancer:</b>	
None of the ingredients is listed.	
· <b>Chemicals known to cause reproductive toxicity for females:</b>	
None of the ingredients is listed.	

(Contd. on page 9)



# Safety Data Sheet

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Printing date 09/22/2015

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**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 8)

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

131-11-3	dimethyl phthalate	D
78-93-3	METHYL ETHYL KETONE	I

· **TLV (Threshold Limit Value established by ACGIH)**

7722-84-1	Hydrogen Peroxide Solution, 30%	A3
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· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02    GHS06

· **Signal word** *Danger*

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

dimethyl phthalate  
2-Butanone, peroxide

· **Hazard statements**

Flammable liquid and vapor.  
Toxic if swallowed.  
Fatal in contact with skin.

· **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Wear protective gloves / eye protection / face protection.  
Wear protective gloves / protective clothing.  
Ground/bond container and receiving equipment.  
Do not get in eyes, on skin, or on clothing.  
Keep container tightly closed.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
If swallowed: Immediately call a poison center/doctor.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Specific treatment (see on this label).  
Rinse mouth.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Take off immediately all contaminated clothing and wash it before reuse.  
Store locked up.  
Store in a well-ventilated place. Keep cool.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 10)

**Safety Data Sheet**  
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**Trade name: LENS BOND OPTICAL CEMENT TYPE F-65 CATALYST**

(Contd. of page 9)

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**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.*

· **Date of preparation / last revision** 09/22/2015 / -· **Abbreviations and acronyms:**

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*Flam. Liq. 3: Flammable liquids, Hazard Category 3*

*Acute Tox. 3: Acute toxicity, Hazard Category 3*

*Acute Tox. 1: Acute toxicity, Hazard Category 1*

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