

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### 3-D Laserscanning Entspiegelungsspray

Revision date: 31.05.2017

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## 1. Identification

### Product identifier

3-D Laserscanning Entspiegelungsspray

#### Further trade names

Article No (user):  
119.990.001  
119.990.004

### Recommended use of the chemical and restrictions on use

#### Use of the substance/mixture

Prüf- und Messtechnik

### Details of the supplier of the safety data sheet

#### Manufacturer

Company name:	Helling GmbH	
Street:	Spoekerdamm 2	
Place:	D-25436 Heidgraben	
Telephone:	+49-4122-922-0	Telefax: +49-4122-922-201
e-mail:	info@helling.de	
Internet:	www.helling.de	

#### Supplier

Company name:	CyberOptics Corporation
Street:	5900 Golden Hills Drive
Place:	USA-MN 55416 Minneapolis
Telephone:	+1 763-542-5000

**Emergency phone number:** GIZ Nord Göttingen +49-(0)551-19240  
(information in German and English)

## 2. Hazard(s) identification

### Classification of the chemical

#### 29 CFR Part 1910.1200

Flammable aerosols: Flam. Aerosol 1  
Serious eye damage/eye irritation: Eye Irrit. 2A  
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)

### Label elements

#### 29 CFR Part 1910.1200

**Signal word:** Danger

**Pictograms:**



#### Hazard statements

Extremely flammable aerosol  
Pressurised container: may burst if heated  
Causes serious eye irritation  
May cause drowsiness or dizziness

#### Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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Do not spray on an open flame or other ignition source.  
Pressurized container: Do not pierce or burn, even after use.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash hands thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
Dispose of contents/container to an appropriate recycling or disposal facility.

**Hazards not otherwise classified**

No information available.

**3. Composition/information on ingredients****Mixtures****Hazardous components**

CAS No	Components	Quantity
106-97-8	butane	55 %
74-98-6	propane	24 %
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	20 %

**4. First-aid measures****Description of first aid measures****General information**

First aider: Pay attention to self-protection!

**After inhalation**

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**After contact with skin**

Wash with plenty of water.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Medical treatment necessary.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Specific hazards arising from the chemical**

Vapours can form explosive mixtures with air. Heating causes rise in pressure with risk of bursting.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

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Do not allow entering drains or surface water.

#### 6. Accidental release measures

##### Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

##### Environmental precautions

Do not allow uncontrolled discharge of product into the environment.

##### Methods and material for containment and cleaning up

Ventilate affected area.

Flammable liquids: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

##### Reference to other sections

Treat the recovered material as prescribed in the section on waste disposal.

#### 7. Handling and storage

##### Precautions for safe handling

###### **Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

###### **Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

##### Conditions for safe storage, including any incompatibilities

###### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

###### **Hints on joint storage**

Do not store together with: Oxidising agent

#### 8. Exposure controls/personal protection

##### Control parameters

##### Exposure limits

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
75-28-5	Isobutane	800	1900		TWA (8 h)	REL
67-63-0	Isopropyl alcohol	400	980		TWA (8 h)	REL
		400	980		TWA (8 h)	REL
		500	1225		STEL (15 min)	REL
74-98-6	Propane	1000	1800		TWA (8 h)	REL
		1000	1800		TWA (8 h)	REL
106-97-8	n-Butane	800	1900		TWA (8 h)	REL

##### Exposure controls



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#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Protective and hygiene measures

Remove contaminated, saturated clothing immediately. When using do not eat or drink.

#### Eye/face protection

Wear eye/face protection.

#### Hand protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Recommended glove articles (Break through time > 480 min)

NBR (Nitrile rubber) (0,35 mm)

Butyl caoutchouc (butyl rubber) (0,5 mm)

FKM (fluoro rubber) (0,4 mm)

Recommended glove articles (Break through time > 240minutes.)

CR (polychloroprene, chloroprene rubber) (0,5 mm)

Unsuitable material:

NR (natural rubber, natural latex) PVC (Polyvinyl chloride)

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protect skin by using protective cream.

#### Skin protection

Body protection: not required.

#### Respiratory protection

When used properly and under normal conditions, respiratory protection is not required.

Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus: Filter type: A (colour: brown)

#### Environmental exposure controls

No information available.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Physical state:

Color: white

Odor: characteristic

pH-Value: not determined

#### Changes in the physical state

Melting point/freezing point: not determined

Initial boiling point and boiling range: not determined

Flash point: not determined

#### Flammability

Solid: not applicable

Gas: not applicable

#### Explosive properties

Heating causes rise in pressure with risk of bursting.

Lower explosion limits: not determined

Upper explosion limits: not determined

#### Auto-ignition temperature

Solid: not applicable

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Gas:	not applicable
Decomposition temperature:	not determined
<b>Oxidizing properties</b>	
Not oxidising.	
Vapor pressure:	not determined
Density (at 20 °C):	0,925 g/cm <sup>3</sup>
<b>Solubility in other solvents</b>	
not determined	
Partition coefficient:	not determined
Vapor density:	not determined
Evaporation rate:	not determined

#### Other information

Solid content:	~10%
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### 10. Stability and reactivity

#### Conditions to avoid

Remove all sources of ignition.

#### Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

### 11. Toxicological information

#### Information on toxicological effects

##### **Acute toxicity**

Based on available data, the classification criteria are not met.

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
106-97-8	butane				
	inhalation (4 h) aerosol	LC50 658 mg/l	Rat		
74-98-6	propane				
	inhalation (4 h) vapour	LC50 > 20 mg/l	Rat		
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 mg/kg 4570	Rat		
	dermal	LD50 mg/kg 13400	Rabbit		
	inhalation (4 h) aerosol	LC50 30 mg/l	Rat		

##### **Irritation and corrosivity**

Irritant effect on the skin: not an irritant.

Irritant effect to eyes: irritant.

##### **Sensitizing effects**

No sensitizing effect known.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

According to current knowledge not a carcinogen. According to current knowledge not mutagen. According to current knowledge not reproduction toxic.

##### **Specific target organ toxicity (STOT) - single exposure**

May cause drowsiness or dizziness.

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#### Specific target organ toxicity (STOT) - repeated exposure

No information available.

Carcinogenicity (OSHA): No ingredient of this mixture is listed.  
Carcinogenicity (IARC): Isopropyl alcohol (CAS 67-63-0) is listed in group 3.  
Carcinogenicity (NTP): No ingredient of this mixture is listed.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

## 12. Ecological information

#### Ecotoxicity

Aquatic toxicity: No data available

#### Persistence and degradability

The product has not been tested.

#### Bioaccumulative potential

The product has not been tested.

#### Mobility in soil

The product has not been tested.

#### Other adverse effects

No information available.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## 13. Disposal considerations

#### Waste treatment methods

##### Disposal recommendations

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

## 14. Transport information

#### US DOT 49 CFR 172.101

UN/ID number: UN 1950  
Proper shipping name: AEROSOLS  
Transport hazard class(es): 2.1  
Hazard label: 2.1



#### Marine transport (IMDG)

UN number: UN 1950  
UN proper shipping name: AEROSOLS  
Transport hazard class(es): 2.1  
Packing group: -  
Hazard label: 2.1

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Special Provisions: 63, 190, 277, 327, 344, 959  
Limited quantity: See SP277  
EmS: F-D, S-U

**Other applicable information (marine transport)**

EQ: E0

**Air transport (ICAO-TI/IATA-DGR)**

**UN number:** UN 1950  
**UN proper shipping name:** AEROSOLS, flammable  
**Transport hazard class(es):** 2.1  
Hazard label: 2.1



Special Provisions: A145 A167 A802  
Limited quantity Passenger: 30 kg G  
IATA-packing instructions - Passenger: 203  
IATA-max. quantity - Passenger: 75 kg  
IATA-packing instructions - Cargo: 203  
IATA-max. quantity - Cargo: 150 kg

**Other applicable information (air transport)**

LQ: Y203  
EQ: E0

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**Special precautions for user**

No information available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

## 15. Regulatory information

**U.S. Regulations****National regulatory information**

SARA Section 311/312 Hazards:  
Butane (106-97-8): Fire hazard  
Propane (74-98-6): Fire hazard  
Isopropyl alcohol (mfg-strong acid process) (67-63-0): Fire hazard, Immediate (acute) health hazard  
Isobutane (75-28-5): Fire hazard  
SARA Section 313 Toxic release inventory:  
Isopropyl alcohol (mfg-strong acid process) (67-63-0): De minimis limit = 1.0 %, Reportable threshold = Standard  
Clean Air Act Section 112(r):  
Butane (106-97-8): Threshold quantities = 10,000 lbs.  
Propane (74-98-6): Threshold quantities = 10,000 lbs.  
Isobutane (75-28-5): Threshold quantities = 10,000 lbs.

**State Regulations**

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**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**16. Other information****Hazardous Materials Information Label (HMIS)**

Health: 1  
Flammability: 4  
Physical Hazard: 1  
Personal Protection: B

**NFPA Hazard Ratings**

Health: 1  
Flammability: 4  
Reactivity: 1  
Unique Hazard: G

**Changes**

Revision date: 31.05.2017  
Revision No: 1,6  
section 1, 3, 7, 8, 11, 12, 15

**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  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*