

## Safety Data Sheet

# Raw Glycerin

from Diesel-Bi<sup>®</sup> production

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### Emergency call

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## 1) Product identification

Product **Raw glycerol from Diesel-Bi<sup>®</sup>**  
Type of product **Glycerol with salts and other impurities**  
EEC 548/67 Annex 1 **Not issued**  
EINECS **200 – 289 –5 (for glycerol)**  
NC Code **15200000**

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## 2) Composition/informations on ingredients

<u>Ingredients</u>	<u>Concentration</u>	<u>Classification</u>
<b>GLYCEROL</b> <i>CAS NUMBER 56 - 81 - 5</i>	85 – 95 % w/w	not required
<b>SALTS OF ORGANIC / INORGANIC ACIDS</b>	5 - 10% w/w	not required
<b>METHYL ALCOHOL</b> <i>CAS NUMBER 67 - 56 - 1</i>	0 - 1.5% w/w	FT R: 11 - 23/25

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### 3) Hazards Identification

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The product does not present relevant hazards for human health in the common practice.

Glycerol, as other easy degradable substances, strongly contributes to depletion of the oxygen in water if disposed in large amounts without precautions.

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### 4) First-aid measures

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#### **Eye contact:**

Flush the eyes with water.  
If irritation symptoms persists, seek for medical attention.

#### **Ingestion:**

Hardly the product can be swallowed in dangerous amounts. In this case, if the person is completely conscious, give him two glasses of water and then allow him to induce vomiting putting his fingers in the throat (after hand washing).

#### **Inhalation:**

In the case a person has been exposed to vapors or fumes from the overheated product, take him away from the contaminated area and keep him a warm, ventilated place.  
Seek for a doctor.

#### **Symptoms:**

Nausea, irritation on the first respiratory tract.

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### 5) Fire-fighting measures

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Burning of the product or fire in the surrounding area.

The product is combustible.  
Suitable extinguishing agents: foam, water spray or CO<sub>2</sub>

A suitable respiratory protective equipment must be in use for fire-fighters.

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## 6) Accidental release measures

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Emergency interventions.

**Personal precautions:**

In case of a big spillage, wear rubber gloves and boots.

**Interventions on the plant:**

try to shut off the leak.

**Draining and cleaning - suggested methods and materials:**

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Collect as much liquid as possible in drums with a suitable transferring system, absorb the remaining with sand or porous material, wash out with water the last amount.

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## 7) Handling and storage

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**Handling general rules:**

clean the pipes and the equipments before any maintenance operations requiring free flames. Store and transfer the product out the contact with humidity because it is hygroscopic. Operate in ventilated rooms and preferably with machinery. Clean any tank or equipment and ventilate it with air before allowing somebody to enter in. Provide eye washing fountains and safety showers are present in the working place.

**Storage:**

store in a ventilated place. Keep away from sources of heat and incompatible substances. Build suitable containment basins around the over-ground tanks.

**Incompatible materials:**

strong oxidants, peroxides.

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## 8) Exposure controls/Personal protection

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Here reported are the occupational exposure limits for some components of the mixture:

<b>GLYCEROL</b>	Reference ACGIH
TLW/TWA	10 mg/mc
Skin	NO
note	as aerosol



**METHYL ALCOHOL** Reference ACGIH

TLW/TWA 262 mg/mc  
TLV/STEL 328 mg/mc  
Skin NO

Personal protective equipment (to wear when effectively required)

**Respiratory protection:** respiratory mask (in case of aerosols)

**Hand protection:** rubber gloves

**Eye protections:** splash goggles

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## 9) Physical and chemical properties

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Physical state	<b>viscous liquid</b>
Color	<b>yellow - brown</b>
Odor	<b>light</b>
pH	<b>slightly alkaline</b>
Boiling point	<b>approx 290 °C</b>
Melting point	<b>approx 24°C (pour point)</b>
Flash point	<b>approx 100 °C, closed vessel</b>
Flammable limits	<b>not applicable at room temperature</b>
Density of the liquid	<b>1,26 g/cm<sup>3</sup> at 20 °C</b>
Solubility	<b>all the ingredients of the mixture are water soluble. The product it self is mixable with water in any ratio.</b>
Solubility in solvents	<b>soluble in the alcohols</b>
Viscosity	<b>350 cSt at 40 °C</b>

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## 10) Stability and reactivity

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**Avoid contact with:**

strong oxidants, e.g. nitric acid, chromic acid, perchloric acid and salts thereof.

peroxides, e.g. sodium peroxide, hydrogen peroxide in concentrated solution.

**Hazardous reactions:**

if said oxidants came in contact with glycerol, an explosive mixture can be obtained.

**Hazardous decomposition products:**

when burning, the fumes contain sodium carbonate

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## 11) Toxicological information

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**Route of exposure:** ingestion, inhalation

**Dangerous effects:**

the mixture has to be considered poorly health dangerous. If ingested in large amounts (forced swallowing) a general discomfort of the digestive tract can be expected. Nausea, vomiting and diarrhea can occur due to the dehydrating properties of glycerol and the dissolved salts. A possible effect of the methyl alcohol can damage the nervous system. Irritation symptoms to the respiratory tract can be expected in the case of repeated inhalations. e.g. if the mixture is usually handled when Hot, without protection.

**Local effects/irritating properties:**

based on the composition, the mixture must be considered slightly irritant for eyes, not even enough to be classified dangerous.

**Carcinogenesis:**

no clear evidence of carcinogenesis is mentioned in the literature for any of the components of the mixture.

**Other irreversible effects:**

no clear evidence of sensitizing or mutagenic properties or effects on reproduction are mentioned in the literature for any of the components of the mixture.

**Experimental data:**

Acute toxicity: METHYL ALCOHOL	LC50	INHALATION	81,9 mg/l 4h rat
GLYCEROL	LD50	INGESTION	12600 mg/kg rat

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## 12) Ecological information

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Data are not available for the mixture as such. All the ingredients can be defined readily degradable following the criteria of EC and OECD classifications. Avoid however to dispose the product in large amounts in the sewers.

**Biodegradation:** >70%, 20 days (for glycerol)

**Aquatic toxicity:**  
GLYCEROL LC50>5000 mg/l 24h Carassus auratus

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## 13) Disposal considerations

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Appropriate methods of disposal.

**Incineration:**

the product can be burned, when admixed with other flammable materials, in incinerators provided with a dust separation chamber.

