Product Safety Assessment

ENLIGHT™ DC-8300 Coolant


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Names
• ENLIGHT™ DC-8300 Coolant

Product Overview
• ENLIGHT™ DC-8300 Coolant is a colorless to yellow liquid with a mild odor. For further details, see Product Description.
• ENLIGHT DC-8300 Coolant is used in diamond wire cutting processes for photovoltaic or solar cell manufacturing. For further details, see Product Uses.
• Worker exposure is possible during manufacture, transport, or use. This product is used in industrial settings and is not sold directly to consumers. Consumer contact with this product is unlikely. For further details, see Exposure Potential.
• This product is essentially nonirritating to the eyes and skin. At room temperature, exposure to vapor is minimal due to low volatility. Low toxicity if swallowed. For further details, see Health Information and the relevant Safety Data Sheet.
• ENLIGHT DC-8300 Coolant is expected to be relatively inert in the environment. This product is unlikely to bioaccumulate in the food chain due to relatively high molecular weight. This product is practically nontoxic to aquatic organisms on an acute basis. For further details, see Environmental Information.
• ENLIGHT DC-8300 Coolant is stable under recommended storage and normal use conditions. For further details, see Physical Hazard Information.

Manufacture of Product
• Locations – The Dow Chemical Company manufactures ENLIGHT™ DC-8300 Coolant at facilities in the Asia-Pacific region. This product is manufactured in quantities sufficient to meet global demand.
• Process – ENLIGHT DC-8300 Coolant is formulated as an aqueous mixture of a polycarboxylic acid salt and a polyethylene glycol.

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Product Description
ENLIGHT™ DC-8300 Coolant is supplied as a liquid with a colorless to yellow appearance and a mild odor.

Product Uses
ENLIGHT™ DC-8300 Coolant is specifically designed to aid in diamond wire cutting processes involved in the manufacture of photovoltaic or solar cells.

Exposure Potential
ENLIGHT™ DC-8300 Coolant is used in the production of photovoltaic cells. Based on the uses for this product, individuals could be exposed through:

- **Workplace exposure** – Exposure can occur either in facilities that manufacture ENLIGHT DC-8300 Coolant or in the various industrial or manufacturing facilities that use this product. Those working with ENLIGHT DC-8300 Coolant in manufacturing operations could be exposed during maintenance, sampling, testing, or other procedures. Each manufacturing facility should have a thorough training program for employees and appropriate work processes, ventilation, and safety equipment in place to limit exposure. See Health Information.

- **Consumer exposure to products containing ENLIGHT DC-8300 Coolant** – Dow does not sell ENLIGHT DC-8300 Coolant for direct consumer use. This product is used in the industrial manufacture of photovoltaic cells, so consumer contact with this product is unlikely. See Health Information.

- **Environmental releases** – In the event of a spill, the focus is on containing the spill to prevent contamination of soil, surface water, or groundwater. If released, the product would initially disperse in water, but would be removed in wastewater-treatment facilities by adsorption to biosolids. This product is practically nontoxic to aquatic organisms on an acute basis. See Environmental, Health, and Physical Hazard Information.

- **Large release** – Industrial spills or releases are infrequent and generally contained. If a large spill does occur, the product should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements. Use appropriate safety equipment. Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater. Contain spilled material if possible. Collect in suitable and properly labeled containers. See Environmental, Health, and Physical Hazard Information.

- **In case of fire** – This product will not burn until the water has evaporated. The dried residue can burn. Keep people away. Isolate the fire and deny unnecessary entry. To extinguish combustible residues, use water fog, carbon-dioxide or dry-chemical extinguishers, or foam. Under fire conditions, some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to carbon monoxide and carbon dioxide. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight the fire from a protected location or safe distance. Follow emergency procedures outlined in the Safety Data Sheet carefully. See Environmental, Health, and Physical Hazard Information.

For more information, see the relevant Safety Data Sheet.

Health Information

**Eye contact** – This product is essentially nonirritating to the eyes.

**Skin contact** – This product is essentially nonirritating to skin. Prolonged skin contact is unlikely to result in adsorption of harmful amounts.

**Inhalation** – At room temperature, exposure to vapor is minimal due to low volatility. Single exposure is not likely to be hazardous.

**Ingestion** – This product has low toxicity if swallowed. Swallowing small amounts incidental to normal handling operations is not likely to cause injury; however, swallowing larger amounts may cause injury.
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**Other** – Based on physical properties, this product is not likely to be an aspiration hazard.

For more information, see the relevant Safety Data Sheet.

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**Environmental Information**

ENLIGHT™ DC-8300 Coolant is a stable, water-based product that is soluble in water. Although this product is not considered biodegradable, it would likely degrade slowly in the environment, including degradation by physical action or upon exposure to sunlight. This product is expected to be removed by wastewater-treatment facilities by adsorption to biosolids. If released to surface water, the product would initially remain dissolved in water and eventually adsorb onto suspended solids and sediments.

Because of its relatively high molecular weight, ENLIGHT DC-8300 Coolant is not likely to accumulate in the food chain (bioconcentration potential is low). This product is practically nontoxic (EC$_{50}$/LC$_{50}$ >100 mg/L in the most sensitive species tested) to aquatic organisms on an acute basis. This product is not persistent, bioaccumulative and toxic (not PBT) or very persistent and very bioaccumulative (not vPvB).

For more information, see the relevant Safety Data Sheet.

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**Physical Hazard Information**

ENLIGHT™ DC-8300 Coolant is stable under recommended storage and normal use conditions. Some components of this product can decompose at elevated temperatures. Decomposition products depend on temperature, air supply, and the presence of other materials. Avoid contact with strong acids, strong bases, strong oxidizers, and strong reducing agents.

For more information, see the relevant Safety Data Sheet.

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**Regulatory Information**

Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of ENLIGHT™ DC-8300 Coolant. These regulations may vary by city, state, country, or geographic region. Information may be found by consulting the relevant Safety Data Sheet or Contact Us.

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**Additional Information**

- Contact Us ([www.dow.com/company/contact/](http://www.dow.com/company/contact/))
- *Become Enlightened: ENLIGHT™ DC-8300 Coolant for Diamond Wire Ingot Squaring*, The Dow Chemical Company, Form No. 118-01787
- *ENLIGHT™ DC-8300 [Coolant] Product Information*, The Dow Chemical Company, Form No. 118-01791


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References
2 ENLIGHT™ DC-8300 [Coolant] Product Information, The Dow Chemical Company, Form No. 118-01791
3 Become Enlightened: ENLIGHT™ DC-8300 Coolant for Diamond Wire Ingot Squaring, The Dow Chemical Company, Form No 118-01787

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