

SAFETY DATA SHEET COVER PAGE

Standard GHS or REACH/EU Compliant SDS begins on the following page.
This page is provided to customers for their assistance and is not part of the Standard Safety Data Sheet.

General Description: BitCool BC-888 is a heat transfer fluid made for cooling electrical components. It's made from a nontoxic, biodegradable synthetic hydrocarbon.

Here is a Quick Guide to Important Information Contained in the SDS:

Characteristic	BC-888	See SDS Section
Toxicity	Nontoxic to Humans	Section 11
Handling	Use Personal Protective Equipment	Section 7.1 & 8.2.2
In Case of Spills	Treat as a biodegradable light oil	Section 6
In case of Fire	BC-888 is fire-resistant	Section 5
Transportation	Not Regulated	Section 14
Biodegradation	Biodegradable	Section 12.2

Clarification Note to Hazard Statement (Section 2): To provide practical and compliant health safety warnings under the GHS Communications and REACH Standards, Engineered Fluids has provided these additional clarifying statements to assist our users in fully understanding the safety risks posed by our products.

The GHS Communication Standard (29 CFR 1910.1200 Appendix A Table A.10.a.) requires that all hydrocarbon-based chemicals be designated a Category 1 Aspiration Hazard if they have a kinematic viscosity ≤ 20.5 mm²/s, measured at 40 C. This includes synthetics like our Dielectric Coolants, regardless of all other characteristics (including their biodegradation, non-toxicity, and food grade certification)

BitCool BC-888 has a kinematic viscosity ≤ 20.5 mm²/s, measured at 40 C, and therefore must be labeled as a Aspiration Hazard to comply with GHS Communications standards, even though this safety statement does not correctly describe the risk posed by BitCool BC-888.

BitCool BC-888 does not pose a toxicity risk if small amounts are swallowed or ingested. However, the standardized wording H304 does not make this differentiation clear and requires the statement "swallowed and enters airways," even though there is little health risk posed by swallowing.

BitCool BC-888 has a very low vapor pressure, thus there is no inhalation hazard for fumes or vapors within the operating temperature range.

The most probable hazard related to aspiration posed by BC-888, outside of drowning, is the inhalation of a "mist" of the product. The definition of a "mist" for the purposes of this SDS is the creation of product particles suspended in air which are created by spraying the product at high pressure through an orifice of sufficiently small size. Except when used as a hydraulic power transfer fluid in high-pressure applications, there is no risk of misting of BitCool BC-888 in normal recommend applications, where the pressures applied are well below 7 Bar / 100PSI. In all applications where "misting" of BC-888 is a possibility (generally where the fluid pressure will exceed 7 Bar / 100PSI on a continuous basis), users should take appropriate precautionary measures such as eye protection, respirators, and sufficient ventilation to clear the workspace.

Contact Engineered Fluids, Inc. for more information.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

SECTION 1: Identification of the substance / mixture and of the company / undertaking

GHS Product Identifier
BitCool BC-888

Relevant identified uses of the substance or mixture and uses advised against
Product Use: Electrically Insulating Heat Transfer Fluid
Uses Advised Against: Applications that require the creation of a mist of the product (liquid particles suspended in air).

Supplier Details

Company Name: Engineered Fluids, Inc.
Company Address: 4917 Profit Drive
Tyler, TX 75303 USA
Emergency Telephone: Call Infotrac, Inc., 1-352-323-3500
Email: support@engineeredfluids.com

SECTION 2. Hazards Identification

Classification of the substance or mixture
H304 ASPIRATION HAZARD – CATEGORY 1

Label elements



Hazard Statements

H304: May be fatal if swallowed AND enters airways.
H332: Harmful if inhaled.

Precautionary Statements

P314: Get medical advice/attention if you feel unwell.
P301: +P330 + P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P501: Dispose of contents / container or recycle in accordance with local regulations.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 - Use only outdoors or in a well-ventilated area.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 - Call a POISON CENTER or doctor if you feel unwell.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

SECTION 3. Composition / information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
1-Decene, dimer, hydrogenated	CAS-No.: 68649-11-6	99.7
3,5-Bis(1,1-Dimethylethyl)-4-hydroxy benzene propanoic acid branched alkyl ester	CAS-No.: 125643-61-0, EC-No.: 406-040-9 EC Index-No.: 607-530-00-7	0.3
-	-	-

SECTION 4. First Aid Measures

Description of first aid measures

Inhalation of mist: Remove person to fresh air and keep comfortable for breathing.

Skin: Wash with soap and water. Obtain medical attention if irritation develops.

Eyes: Irrigate water. Obtain medical attention if irritation develops.

Ingestion: Do not induce vomiting, rinse mouth and obtain medical attention if irritation develops.

Most important symptoms and effects, both acute and delayed

No adverse effects expected under normal use.

Indication of any immediate medical attention and special treatment needed

No special treatment required.

SECTION 5. Fire Fighting Measures

Flash Point (ASTM D92 Open Cup): 201 C.

NFPA Hazard Class

Health: 0 / Flammability: 1 / Instability: 0

Extinguishing media

Carbon dioxide, dry powder, foam or water fog. Do not use water jets.

Special hazards arising from the substance or mixture

In the event of a fire, or if heated, a pressure increase may occur and the container may burst, or the HPDE plastic container may melt releasing the product.

Hazardous combustion products - combustion may yield smoke, carbon oxides, and other products of incomplete combustion.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

Advice for fire fighters
Self-contained breathing apparatus may be required.

SECTION 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
Spilt product constitutes a slip hazard.
Avoid prolonged contact with skin. Avoid contact with eyes.

Environmental precautions

Do not contaminate any lakes, streams, ponds, groundwater, or soil. Avoid flushing into drains. In the event of a large spillage contain product as thoroughly as possible and dispose of in accordance with local regulations.

Methods and material for containment and cleaning up

Soak up released material with absorbent granules or sheets for disposal.

SECTION 7. Handling and Storage

Precautions for safe handling

Avoid prolonged contact with skin. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

No special precautions required. No temperature limitations, product in plastic containers (HDPE) should be stored out of direct sunlight in protect the plastic storage container from UV damage. Exposure to air should be minimized to maintain product quality and prevent contamination. Opened containers should be properly resealed and stored away from direct sunlight.

Specific end use(s)

Heat transfer fluid

SECTION 8. Exposure Controls/ Personal Protection

Control parameters

No relevant control parameters.

Exposure controls

Respiratory protection: None required.

Skin protection: Wear protective equipment adequate to prevent prolonged skin exposure.

Hand protection: Wash hands with soap and water after use. For prolonged or repeated skin contact, gloves are recommended.

Eye protection: If splashes are likely to occur wear safety glasses.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

Eye washes should be available for emergency use.

SECTION 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance:	Light Green Tint
Odor:	Slight
pH:	Not applicable
Freezing point (°C):	-65
Initial boiling point and boiling range (°C):	>350
Flash point (ASTM D92, °C)	201
Upper/lower flammability or explosive limits:	Data not available
Vapor pressure @ 20C, kPa	0.01
Vapor density:	Not applicable
Relative density at 20°C.:	0.8
Water solubility (ppm):	<80ppm
Partition coefficient:	>4.82@20C
Auto-ignition temperature (C):	>350
Decomposition temperature:	N/A
Kinematic Viscosity, cSt @ 40 °C:	7.3
Explosive properties:	Non-explosive
Oxidizing properties:	Non-oxidizing

SECTION 10. Stability and Reactivity

Reactivity

Product is stable under normal conditions of use.

Chemical stability

Product is stable under normal conditions of use.

Possibility of hazardous reactions

Data not available.

Conditions to avoid

Avoid temperatures >290°C.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

None.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

SECTION 11. Toxicological information

BitCool BC-888	
LD50 oral rat	> 10000 mg/kg
LD50 dermal rabbit	> 3,5 g/kg

Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by : The substance/mixture has no endocrine
endocrine disrupting properties disrupting properties.

Other information

No additional information available

SECTION 12. Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic
organisms nor to cause long-term adverse effects
in the environment.

Hazardous to the aquatic : Not classified
environment, short-term (acute)

Hazardous to the aquatic : Not classified
environment, long-term (chronic)

Rapidly degradable

BitCool BC-888	
LC50 96h - Fish [1]	> 10000 mg/l
EC50 48h - Crustacea [1]	> 10000 mg/l
EC50 72h - Algae [1]	> 1000 mg/l

12.2. Persistence and degradability

BitCool BC-888	
Persistence and degradability	Inherently biodegradable.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

12.3. Bioaccumulative potential

BitCool BC-888	
Partition coefficient n-octanol/water (Log Kow)	>4.82 @20C
Bioaccumulative potential	No bioaccumulation potential.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

BitCool BC-888
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment: The substance/mixture has no endocrine disrupting properties caused by endocrine disrupting properties.

12.7. Other adverse effects

No additional information available

SECTION 13. Disposal Considerations

Dispose of contents and container in accordance with all local and national regulations and in keeping with good engineering practice.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

SECTION 14. Transport information

The shipping descriptions shown here are for bulk shipments only and may not apply to shipments in non-bulk packages (see regulatory definition).

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6 Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

SECTION 15: Regulatory information

National legislation SARA 311/312 Hazards: Acute toxicity (any route of exposure):
Aspiration hazard

CERCLA Reportable Quantity: This material does not contain any components with a CERCLA RQ.

SARA 302 Reportable Quantity: This material does not contain any components with a SARA 302 RQ.

SARA 302 Threshold Planning Quantity: This material does not contain any components with a section 302 EHS TPQ.

SARA 304 Reportable Quantity: This material does not contain any components with a section 304 EHS RQ.

SARA 313 Components: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act Ozone-Depletion Potential: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

US State Regulations

Pennsylvania Right To Know: **1-Decene, dimer, hydrogenated CAS-No.: 68649-11-6**

California Prop. 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Safety Data Sheet

OSHA Hazard Communication Standard (29 CFR 1910.1200 - GHS Rev 3)

Issue Date: BitCool BC-888

Version: 2023-10-24

Notification status: Europe REACH: This product is in full compliance according to REACH regulation 1907/2006/EC.

Switzerland CH INV: Not in compliance with the inventory

United States of America (USA) TSCA: All substances listed as active on the TSCA inventory.

Canada DSL : All components of this product are on the Canadian DSL

Other AIIC : On the inventory, or in compliance with the inventory

New Zealand NZIoC : Not in compliance with the inventory

Japan ENCS : On the inventory, or in compliance with the inventory

Korea KECI : Not in compliance with the inventory

Philippines PICCS : On the inventory, or in compliance with the inventory

Taiwan TCSI : On the inventory, or in compliance with the inventory

China IECSC : On the inventory, or in compliance with the inventory

SECTION 16. Other information

The information provided in this Safety Data Sheet is correct to our best knowledge, information, and belief at the date of its publication. It is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not be construed as guaranteeing any specific property of the product.

www.engineeredfluids.com

Contact Engineered Fluids for further information at support@engineeredfluids.com.