

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 04.02.2020

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FR3® Fluid

SECTION 1: Identification

Product identifier

Product name: FR3® Fluid

Product code: 100088941, 100089128, 100089127, 100089129,
110013820, 110016511



Recommended use of the product and restriction on use

Relevant identified uses: Dielectric coolant

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

Cargill Incorporated
15407 McGinty Rd W
Wayzata, MN 55391
1-800-227-4455

Emergency telephone number:

ChemTel Inc
1-800-255-3924 (North America)
01-813-248-0585 (International)

SECTION 2: Hazard(s) identification

GHS classification: Not a hazardous substance or mixture

Label elements

Hazard pictograms: None

Signal word: None

Hazard statements: None

Precautionary statements: None

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 8001-22-7	Soybean Oil	>99

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

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After inhalation:

Get medical advice if you feel unwell.

If inhaled, remove to fresh air.

After skin contact:

Wash with plenty of water / soap and rinse thoroughly.

Get medical advice if skin irritation occurs or if you feel unwell.

After eye contact:

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

Get medical advice/attention.

After swallowing:

Rinse mouth and do not induce vomiting.

Get medical advice if you feel unwell or concerned.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Any additional important symptoms and effects are described in Section 11: Toxicological Information

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing media:

Do not use water stream as an extinguisher.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors.

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

Special precautions:

Rags, steel wool, or waste contaminated with this product may spontaneously catch fire if improperly discarded.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear recommended personal protective equipment.

Ensure adequate ventilation.

Ensure air handling systems are operational.

Spilled material may cause a slipping hazard. Use appropriate safety equipment.

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Environmental precautions:

Prevent from reaching drains, sewer, or waterway.

Should not be released into the environment.

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing.

Dispose of contents / container in accordance with local regulations.

Used rags or other cleaning materials should be soaked with water and placed in a sealed container to prevent spontaneous combustion.

Small spills: Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders). Remove with shovel. Collect in suitable and properly labeled containers.

Large spills: Dike area to contain spill. Knock down and dilute vapors with water fog or spray. Collect with vacuum equipment or inert materials. Approach release upwind.

Reference to other sections:

Sections 8 and 13.

SECTION 7: Handling and storage

Precautions for safe handling:

Use appropriate personal protective equipment (see Section 8).

Avoid breathing mist or vapor.

Use with adequate ventilation.

Wash thoroughly after handling.

Do not eat, drink, smoke or use personal products when handling chemical substances.

Used rags or other cleaning materials should be soaked with water and placed in a sealed container to prevent spontaneous combustion.

Surfaces of porous or fibrous materials saturated with oils can self-heat and auto ignite. Avoid contamination of thermal insulation materials and the accumulation of oily rags or similar material near hot surfaces. Non-absorbent insulation such as foam glass is recommended for tankage and piping .

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

Keep container tightly sealed.

Protect from freezing and physical damage.

Protect material from extreme temperatures, humidity, and water prior to use. Recommend storage temperatures at 10 - 40°C (50 - 104°F).

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
NIOSH	Soybean Oil	8001-22-7	REL: 10 mg/m ³ (Vegetable oil mist, Total)
	Soybean Oil	8001-22-7	REL: 5 mg/m ³ (Vegetable oil mist, Respirable)
OSHA	Soybean Oil	8001-22-7	PEL: 15 mg/m ³ (Vegetable oil mist, Total dust)
	Soybean Oil	8001-22-7	PEL: 5 mg/m ³ (Vegetable oil mist, Respirable fraction)

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Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Monitoring procedures should be chosen according to the indications set by national authorities or recognized standards.

Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Personal protection equipment

Eye and face protection:

Safety glasses, goggles, or face shield recommended to protect eyes from mists or splashing.

Skin and body protection:

Hands: Wear impervious gloves. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

Select glove material impermeable and resistant to the substance.

Wear protective clothing as necessary to minimize prolonged skin contact. Selection of specific items will depend on task.

Suitable glove barrier materials include: Nitrile/butadiene rubber ("nitrile" or "NBR"); 0.11 mm coating thickness, permeation level 6, >480 minutes breakthrough time.

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator.

Suitable respiratory protection used for aerosol/mist formation: Organic vapour cartridge, filter type A (brown for organic gases and vapours with a boiling point of > 65 °C).

General hygienic measures:

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid, light green
Odor	Slight
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	>360°C (>680°F)
Flash point (closed cup)	>265°C / 510°F PMCC (ASTM D93 or ISO 2719)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.

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Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	<1.3 Pa (<0.01 mmHg)
Vapor density	Not determined or not available.
Density	0.92 gm/cm ³ (7.677 lb/gal)
Relative density	Not determined or not available.
Solubilities	Insoluble
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	401-404°C (ASTM E659)
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	33-35 mm ² /s
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

To avoid thermal decomposition, avoid temperatures >250 °C.

Incompatible materials:

Strong oxidizing agents.

Strong alkali.

Hazardous decomposition products:

Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

Acute toxicity

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

Product data:

Route	Result
Oral	LD50 Rat: >5000 mg/kg
Dermal	LD50 Rabbit: >2000 mg/kg

Substance data: No data available.

Skin corrosion/irritation

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

Product data:

Based on data for similar materials or components: not expected to cause irritation.

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Substance data: No data available.

Serious eye damage/irritation

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

Product data:

Based on data for similar materials or components may be slightly irritating, but not sufficient for classification.

Substance data: No data available.

Respiratory or skin sensitization

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

Product data:

For Skin Sensitization: Not expected to be a skin sensitizer based on animal data for components or similar substances.

For Respiratory Sensitization: No relative data found.

Substance data: No data available.

Carcinogenicity

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

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

OSHA Carcinogens: Not applicable

Germ cell mutagenicity

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

Product data:

Not expected to be a germ cell mutagen. In vitro tests with similar materials were negative for mutagenic effects.

Substance data: No data available.

Reproductive toxicity

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

Product data:

Not expected to cause toxic reproductive or developmental effects based on testing in animals with similar substances.

Substance data: No data available.

Specific target organ toxicity (single exposure)

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

Product data:

Not expected to cause organ damage from a single exposure based on acute toxicity data for components or similar substances.

Substance data: No data available.

Specific target organ toxicity (repeated exposure)

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

Product data:

Not expected to cause organ damage from a single exposure based on acute toxicity data for components or similar substances.

Substance data: No data available.

Aspiration toxicity

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

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

Other information:

Acute inhalation data not available. At room temperature, exposure to vapor is minimal due to low volatility; single exposure is not likely to be hazardous.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment:

This product not expected to be harmful to aquatic organisms.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

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

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data:

Readily biodegradable.

Substance data: No data available.

Bioaccumulative potential

Product data:

Based on component or similar material, not expected to bioaccumulate.

Substance data: No data available.

Mobility in soil

Product data:

Product has low mobility in soil.

Substance data: No data available.

Results of PBT and vPvB assessment

Product data:

PBT assessment:

This product does not contain any substances above regulatory requirements that are assessed to be a PBT.

vPvB assessment:

This product does not contain any substances above regulatory requirements that are assessed to be a vPvB.

Substance data:

PBT assessment: This product does not contain any substances that are assessed to be a PBT.

vPvB assessment: This product does not contain any substances that are assessed to be a vPvB.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

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Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): All ingredients are listed or exempt.

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 extremely hazardous substances: None of the ingredients are listed.

SARA Section 313 toxic chemicals: None of the ingredients are listed.

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

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8001-22-7	Soybean Oil	Listed
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New Jersey Right to Know:

8001-22-7	Soybean Oil	Not Listed
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New York Right to Know:

8001-22-7	Soybean Oil	Not Listed
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Pennsylvania Right to Know:

8001-22-7	Soybean Oil	Listed
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SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance within GHS guidelines. This document is provided for your information and convenience only. All information, statements, recommendations and suggestions are believed to be true and accurate but are made without guarantee, express or implied. WE DISCLAIM, TO THE FULLEST EXTENT PERMITTED BY LAW, ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE and FREEDOM FROM INFRINGEMENT and disclaim all liability in connection with the storage, handling or use of our products or information, statements, recommendations and suggestions made by Cargill. All such risks are assumed by you/user. The labeling, substantiation and decision making relating to the regulatory approval status of, the labeling on and claims for your products is your responsibility. We recommend you consult regulatory and legal advisors familiar with applicable laws, rules and regulations prior to making regulatory, labeling or claims decisions for your products. The information, statements, recommendations and suggestions contained herein are subject to change without notice. ©2018, Cargill, Incorporated. All rights reserved. (03/18)

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End of Safety Data Sheet