Safety Data Sheet

According to the Australian Work Health and Safety Regulations

Revision date: 08.01.2024

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:

Cargill Australia

Cargill Bioindustrial

Level 11

28 Freshwater Place

Southbank, Victoria 3006; GPO Box 58, Melbourne, Victoria 3001

+61 3 9268 7200; 131126 (NSW Poison Control Centre)

Emergency telephone number:

United States

VelocityEHS (formerly ChemTel, Inc)

1-800-255-3924 (North America)

+1-813-248-0585 (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 and 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:
First responders should wear gloves and other self-protection when performing treatment.

After inhalation:
If inhaled, remove to fresh air.
Get medical advice if you feel unwell.

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: Fire fighting 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 steam as an extinguisher, as this may spread fire.

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.

Environmental precautions:

Should not be released into the environment.

Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

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.

Wear protective eye wear, gloves and clothing.

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

Dispose of contents / container in accordance with local regulations.

Reference to other sections:

Sections 8 and 13.

SECTION 7: Handling and storage precautions

Precautions for safe handling:

Use appropriate personal protective equipment (see Section 8).
Used rags or other cleaning materials should be soaked with water and placed in a sealed container to prevent spontaneous combustion.
Wash thoroughly after handling.
Use only with adequate ventilation.
Avoid breathing mist or vapor.
Do not eat, drink, smoke or use personal products when handling chemical substances.
Surfaces of porous or fibrous materials saturated with this material can self-heat and auto-ignite when exposed to air. Thin films of material on non-porous surfaces in contact with air will polymerize over time making it increasingly more difficult to clean

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.
Protect from freezing and physical damage.
Keep container tightly sealed.
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 and personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
Australia	Soybean Oil	8001-22-7	TWA: 10 mg/m³ (Vegetable oil mists (except castor oil, cashew nut or similar irritant oils))

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:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

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.

Personal protection equipment

Eye and face protection:

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

Safety glasses with side shields. Safety goggles or face shield recommended when eye and face contact is possible due to splashing or spraying of material.

Skin and body protection:

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.to vapor is minimal due to low volatility; single exposure is not likely to be hazardous.

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.

General hygienic measures:

Handle in accordance with good industrial hygiene and safety practice.

Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work.

Wash contaminated clothing before reuse or discard.

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	>360°C (>680°F)
Initial boiling point/range	Not determined or not available.
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.
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/cm³ (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 mm²/s
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

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: Hazard 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.

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):

Name	Classification
Soybean Oil	Not Applicable

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

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

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:

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

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

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

Australian Dangerous Goods (ADG)

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

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

Australia regulations

Australian Inventory of Chemical Substances (AICS): All ingredients are listed or exempt.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP):

Ingredient Name	CAS	Schedules
Soybean Oil	8001-22-7	Not Applicable

Additional information: Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This SDS was authored in accordance with the Australian Work Health and Safety Regulations and supplemented by the Australian Code of Practice on the Preparation of Safety Data Sheets for Hazardous Chemicals. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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End of Safety Data Sheet