

SAFETY DATA SHEET

AFL- FCC2 - ENHANCED FORMULA

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

1. Identification

Product identifier

Product name AFL- FCC2 - ENHANCED FORMULA

Product number FCC2-00-0902, FCC2-10-0902, FCC2-10-0903

Synonyms; trade names FCC2-10-0903, Case of 12 cans

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Details of the supplier of the safety data sheet

Supplier AFL
16 Eastgate Park
Belmont, NH 03220
United States of America
CAGE: 0NL21

Tel: +1 603-528-7780
www.AFLglobal.com

Manufacturer MICROCARE LLC
595 John Downey Drive
New Britain, CT 06051
United States of America
CAGE: OATV9
Tel: + 1 800 638 0125, +1 860-827-0626
techsupport@microcare.com

Emergency telephone number

Emergency telephone INFOTRAC 1-800-535-5053 (U.S.A. and CANADA)
1-352-323-3500 (from anywhere in the world)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Human health Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Environmental The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Physicochemical Vapors are heavier than air and may travel along the floor and accumulate in the bottom of containers. Gas or vapor displaces oxygen available for breathing (asphyxiant). Not considered to be a significant hazard due to the small quantities used.

Label elements

Hazard statements NC Not Classified

AFL- FCC2 - ENHANCED FORMULA

Supplemental label information

EUH210 Safety data sheet available on request. RCH001a For use in industrial installations only.

Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

3. Composition/information on ingredients

Mixtures

Methyl Nonafluoroisobutyl Ether CAS number: 163702-08-7	30-60%
Classification Not Classified	
Methyl Nonafluorobutyl Ether CAS number: 163702-07-6	30-60%
Classification Not Classified	
PROPAN-2-OL CAS number: 67-63-0	5-10%
Classification Flam. Liq. 2 - H225 Eye Irrit. 2A - H319 STOT SE 3 - H336	

The full text for all hazard statements is displayed in Section 16.

Composition comments

TSCA: The ingredients of this product are on the TSCA Inventory. The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200 TSCA: The ingredients of this product are on the TSCA Inventory.

Ingredient notes

This product does not contain any substances classified as PBT or vPvB.

Composition

4. First-aid measures

Description of first aid measures
General information

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Never give anything by mouth to an unconscious person.

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.

Ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Consult a physician for specific advice.

AFL- FCC2 - ENHANCED FORMULA

Skin Contact Due to the small packaging, the risk of skin contact is minimal. Remove contaminated clothing and rinse skin thoroughly with water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

General information For further information, please refer to section 11.

Inhalation Vapors in high concentrations are anesthetic. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Central nervous system depression.

Ingestion Due to the physical nature of this material it is unlikely that swallowing will occur. May cause nausea, headache, dizziness and intoxication. Congestion of the lungs may occur, producing severe shortness of breath.

Skin contact Prolonged skin contact may cause redness and irritation. Mild dermatitis, allergic skin rash.

Eye contact May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable.

Special hazards arising from the substance or mixture

Flammability Class The product is not flammable.

Specific hazards Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. Containers can burst violently when heated, due to excess pressure build-up.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting Closed containers can burst violently when heated, due to excess pressure build-up. Containers close to fire should be removed or cooled with water. Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

Environmental precautions

Environmental precautions Not considered to be a significant hazard due to the small quantities used. Avoid discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material.

AFL- FCC2 - ENHANCED FORMULA

Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with non-combustible, absorbent material. Do not discharge into drains or watercourses or onto the ground.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards.

7. Handling and storage

Precautions for safe handling

Usage precautions Provide adequate ventilation. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibilities

Storage precautions Do not store near heat sources or expose to high temperatures. Keep containers upright.

Storage class The product is not flammable.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1. For use in industrial installations only.

Usage description Cleaning agent.

Reference to other sections. Store away from incompatible materials (see Section 10).

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Methyl Nonafluoroisobutyl Ether

Long-term exposure limit (8-hour TWA): 750 ppm

Methyl Nonafluorobutyl Ether

Long-term exposure limit (8-hour TWA): 750 ppm

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³

Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³

A4

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

Ingredient comments WEL = Workplace Exposure Limits Threshold Limit Values (2005), ACGIH, by the American Conference on Governmental Industrial Hygienists. ACGIH = US Standard. SUP = Supplier's recommendation. EU = Indicative Values according to Commission Directive 91/322/EEC.

Exposure controls

Protective equipment



Appropriate engineering controls

No specific ventilation requirements. This product must not be handled in a confined space without adequate ventilation.

AFL- FCC2 - ENHANCED FORMULA

Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Hand protection not required. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Neoprene.
Hygiene measures	When using do not eat, drink or smoke. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
Environmental exposure controls	Not regarded as dangerous for the environment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear liquid.
Color	Colorless.
Odor	Slight alcoholic.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	54°C/129°F @ 101.3 kPa
Flash point	The product is not flammable. Does not flash, Tag closed cup (ASTM D 56)
Evaporation rate	58 (BUOAC = 1)
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 16.7 %(V) Lower flammable/explosive limit: 4 %(V)
Other flammability	No information available.
Vapor pressure	27.6 kPa @ 25°C
Vapor density	7.0
Relative density	1.48 (H2O = 1) @ 25°C
Bulk density	No information available.
Solubility(ies)	Slightly soluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	443°C ASTM E659
Decomposition Temperature	No information available.
Viscosity	≤0.01 Pa s @ 23°C
Explosive properties	No information available.

AFL- FCC2 - ENHANCED FORMULA

Refractive index	No information available.
Particle size	Not applicable.
Molecular weight	No information available.
Volatility	100%
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

10. Stability and reactivity

Reactivity	Strong alkalis. Chemically-active metals.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Will not polymerize.
Conditions to avoid	Keep away from heat, sparks and open flame. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapors.
Materials to avoid	Alkali metals. Alkaline earth metals. Powdered metal. Strong acids.
Hazardous decomposition products	Heating may generate the following products: Toxic and corrosive gases or vapors. Hydrogen fluoride (HF). Hydrogen chloride (HCl). Halogenated hydrocarbons. Carbon dioxide (CO ₂).

11. Toxicological information

Information on toxicological effects

Other health effects	There is no evidence that the product can cause cancer.
Inhalation	Vapors may irritate throat/respiratory system. A single exposure may cause the following adverse effects: Coughing. Difficulty in breathing.
Ingestion	May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.
Skin Contact	Repeated exposure may cause skin dryness or cracking. Product has a defatting effect on skin. May cause allergic contact eczema.
Eye contact	May cause temporary eye irritation.

Toxicological information on ingredients.

Methyl Nonafluoroisobutyl Ether

Acute toxicity - oral

Acute toxicity oral (LD₅₀) 5,000.0 mg/kg)

Species Rat

Acute toxicity - inhalation

AFL- FCC2 - ENHANCED FORMULA

Acute toxicity inhalation
(LC₅₀ vapours mg/l)

1,000.0

Species

Rat

ATE inhalation (vapours
mg/l)

1,000.0

Methyl Nonafluorobutyl Ether

Other health effects

There is no evidence that the product can cause cancer.

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg)

5,000.0

Species

Rat

ATE oral (mg/kg)

5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l)

1,000.0

Species

Rat

ATE inhalation (vapours
mg/l)

1,000.0

PROPAN-2-OL**Acute toxicity - inhalation**

Acute toxicity inhalation
(LC₅₀ vapours mg/l)

16,000.0

ATE inhalation (vapours
mg/l)

16,000.0

Carcinogenicity

IARC carcinogenicity

IARC Group 3 Not classifiable as to its carcinogenicity to humans.

NTP carcinogenicity

Not listed.

OSHA Carcinogenicity

Not listed.

12. Ecological information

Ecotoxicity

There are no data on the ecotoxicity of this product.

Ecological information on ingredients.**Methyl Nonafluoroisobutyl Ether**

Ecotoxicity

The product is not expected to be toxic to aquatic organisms.

Methyl Nonafluorobutyl Ether

Ecotoxicity

There are no data on the ecotoxicity of this product.

Toxicity

Not considered toxic to fish.

AFL- FCC2 - ENHANCED FORMULA

Ecological information on ingredients.

Methyl Nonafluoroisobutyl Ether

Toxicity Not considered toxic to fish.

Methyl Nonafluorobutyl Ether

Toxicity Not considered toxic to fish.

PROPAN-2-OL

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 9,640 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 5102 mg/l, Daphnia magna

Acute toxicity - aquatic plants IC₅₀, 72 hours: >2,000 mg/l, Algae

Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.

Methyl Nonafluoroisobutyl Ether

Persistence and degradability The product is not expected to be biodegradable.

Methyl Nonafluorobutyl Ether

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

Methyl Nonafluoroisobutyl Ether

Bio-Accumulative Potential No data available on bioaccumulation.

Methyl Nonafluorobutyl Ether

Bio-Accumulative Potential No data available on bioaccumulation.

PROPAN-2-OL

Partition coefficient : 0.05

Mobility in soil

Mobility The product contains volatile substances which may spread in the atmosphere. Not considered to be a significant hazard due to the small quantities used.

AFL- FCC2 - ENHANCED FORMULA

Ecological information on ingredients.

Methyl Nonafluoroisobutyl Ether

Mobility Not applicable.

Methyl Nonafluorobutyl Ether

Mobility Not applicable.

Other adverse effects

Other adverse effects The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

13. Disposal considerations

Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General FCC2-10-0902 and FCC2-10-0903 can be shipped as Consumer ORM-D.

UN proper shipping name

Proper shipping name (International) Not applicable., Non-hazardous substance.

Transport hazard class(es)

Transport Labels (International) Not applicable., Non-hazardous substance.

Transport labels

No transport warning sign required. Not regulated.

Packing group

Packing group (International) Not applicable., Non-hazardous substance.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

No information required.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required. Not relevant.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
Not listed.

AFL- FCC2 - ENHANCED FORMULA

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Not listed.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Not listed.

SARA 313 Emission Reporting

Not listed.

CAA Accidental Release Prevention

Not listed.

SARA (311/312) Hazard Categories

None

OSHA Highly Hazardous Chemicals

Not listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Not listed.

California Air Toxics "Hot Spots" (A-I)

PROPAN-2-OL

Present.

California Air Toxics "Hot Spots" (A-II)

Not listed.

California Directors List of Hazardous Substances

PROPAN-2-OL

Present.

Massachusetts "Right To Know" List

PROPAN-2-OL

Present.

Rhode Island "Right To Know" List

PROPAN-2-OL

Present.

Minnesota "Right To Know" List

PROPAN-2-OL

Present.

New Jersey "Right To Know" List

PROPAN-2-OL

Present.

Pennsylvania "Right To Know" List

PROPAN-2-OL

Present.

AFL- FCC2 - ENHANCED FORMULA

Inventories

Canada - DSL/NDSL

DSL

US - TSCA

Yes

US - TSCA 12(b) Export Notification

The following ingredients are listed:

Methyl Nonafluoroisobutyl Ether

Present.

Methyl Nonafluorobutyl Ether

Present.

16. Other information

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.

ICAO: Technical instructions for the safe transport of dangerous goods by air.

IMDG: International maritime dangerous goods.

CAS: Chemical abstracts service.

ATE: Acute toxicity estimate.

LC₅₀: Lethal concentration to 50 % of a test population.

LD₅₀: Lethal dose to 50% of a test population (median lethal dose).

EC₅₀: 50% of maximal effective concentration.

PBT: Persistent, bioaccumulative and toxic substance.

vPvB: Very persistent and very bioaccumulative.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

6/15/2022

Revision

30

Supersedes date

5/17/2021

SDS No.

BULK - FCC2-00-0902

SDS status

Approved.

Hazard statements in full

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.