UTC Aerospace Systems

Revision: 6
02/12/2014

SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: ICEX® II.
Synonyms: None
Material identifier/Product Codes: 74-451-136; 74-451-139 (Kits: 74-451-Z)
Molecular Formula: Not applicable
Molecular Weight: Not applicable

Manufacturer/Supplier: Goodrich Corporation
Address: 1555 Corporate Woods Parkway
Uniontown, Ohio 44685
Email: Terry.Sluss@utas.utc.com
Contact Person: EH&S Manager
Business Telephone: (330)374-4011

24 Hour Emergency: (800)424-9300

Intended Use: Aerospace Coating

2 HAZARDS IDENTIFICATION

Physical hazards	Not classified.
Health hazards	Not classified.
OSHA defined hazards	Not classified

Label elements

Hazard symbol	None.
Signal word	None.

Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statements	

Prevention	Observe good industrial hygiene practices.
Response	Wash hands after handling.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)	Repeated exposure may cause skin dryness or cracking.
Supplemental information	Not applicable.

3 COMPOSITION / INFORMATION ON INGREDIENTS

Substance or Mixture: Mixture

Chemical Name	CAS-No.	Concentration (%)
Silicone Fluid	Mixture	>80
Amino functional Oligosiloxame	67923-07-3	<20

4 FIRST AID MEASURES

Inhalation: If inhaled, move to fresh air. If breathing is difficult, keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Eye contact: Rinse with water. If easy to do, remove contact lenses, if worn. Get medical attention if irritation develops and persists.

Skin Contact: Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

Expected acute and delayed symptoms: Direct contact with eyes may cause temporary irritation. Repeated exposure may cause skin dryness or cracking.

Personal protection for first-aid responders: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

Notes to physician: Treat symptomatically.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Dry chemical, carbon dioxide, foam

Extinguishing Media to Avoid: Water may react with material.

Specific Hazards: During fire, gases hazardous to health may be formed. Container may rupture from gas generation in a fire situation.

Special Fire Fighting Procedures: Self contained breathing apparatus and full protective clothing must be worn in case of fire. Use water spray to keep fire-exposed containers cool.

Fire-fighting equipment/instructions: Move containers from fire area if you can do so without risk.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous Combustion Products: Carbon oxides, Silicon dioxide, Formaldehyde, Benzene, Nitrogen oxides, Methanol, Hydrocarbons.

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Measures: Wear appropriate personal protective equipment (See Section 8). Keep unnecessary personnel away. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spillages cannot be contained.

Clean-up Methods and Materials and Containment Measures: Eliminate all ignition sources. Clean up in accordance with all applicable regulations.

Small Liquid Spills: Wipe up or use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Large Spillages: Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Flush area with water spray. Prevent entry into waterways, sewer, basements or confined areas.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7 HANDLING AND STORAGE

Handling: Personal Precautionary Measures: Wear appropriate personal protective equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wash thoroughly after handling.

Storage: Keep container closed. Keep from freezing. Store away from incompatible materials.

Special Handling Instructions: In addition to any precautions listed, consult occupational safety and health specialist to ensure that the suggested procedures will be adequate and in compliance with applicable laws and regulations.

Additional Information: This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300°F (149°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

Traces of benzene (carcinogen) may form if heated in air above 300°F (149°C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits: No exposure limits noted for ingredient(s).

Biological limit values: No biological exposure limits noted for the ingredient(s).

Engineering Measures: Depending on use, process enclosures, local exhaust ventilation, or other engineering controls may be required to keep airborne contaminants below established exposure limits.

Personal Protective Equipment

Respiratory Protection: Respiratory Protection: If engineering controls do not keep airborne concentrations below established exposure limits, follow NIOSH guidelines in determining appropriate respirator protection.

Eye Protection: Wear safety glasses with side shields (or goggles) full-face respirator, if needed.

Hand Protection: Wear chemical-resistant gloves (e.g. nitrile or latex).

Skin and Body Protection: Wear flame resistant coveralls, lab coat, or apron to prevent skin contact.

Additional information: Animal studies have shown that inhalation of aminosilicones or aminosilicone emulsions may be hazardous. A NIOSH approved respirator should be worn if processing of this material is likely to form an aerosol or mist.

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300°F (149°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

Traces of benzene (carcinogen) may form if heated in air above 300°F (149°C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements. Avoid eye contact.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Physical State: Liquid
Color: Clear
Odor: Amine
Odor Threshold: No data available
pH: No data available
Boiling Point, initial boiling point, and boiling range: > 149°C (> 300°F)
Melting Point/Freezing Point: No data available
Softening Point: Not applicable
Flash Point: > 93°C (> 200°F)
Evaporation Rate: No data available
Flammability Limit – Upper (vol %): No data available
Flammability Limit – Lower (vol %): No data available
Evaporation Rate (Butyl acetate =1): <1

Vapor Pressure: No data available
Vapor Density (Air=1) : >1
Specific Gravity: 0.987
Solubility in Water: Reacts slowly
Partition Coefficient (n-Octanol/water): No data available
Auto-ignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Volatiles: <2 %

10 STABILITY AND REACTIVITY

Stability: Stable under recommended handling and storage conditions.

Conditions to Avoid: Elevated temperatures, Contact with incompatible materials.

Incompatible Materials: Strong oxidizing agents, Water.

Hazardous Decomposition Products: Carbon oxides, Silicon dioxide, Formaldehyde, Benzene, Nitrogen oxides, Methanol, and Hydrocarbons.

Hazardous Polymerizations: Will not occur.

11 TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
Inhalation	Inhalation of mist may cause damage to nasal and respiratory passages.
Skin contact	Repeated exposure may cause skin dryness cause or cracking.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation. Repeated exposure may cause skin dryness or cracking.

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Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Repeated exposure may cause skin dryness or cracking.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization
Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not available.

Further information: Animal studies have shown that inhalation of aminosilicones or aminosilicone emulsions may be hazardous.

This product contains methylpolysiloxanes which can generate formaldehyde at approximately 300°F (149°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard.

Traces of benzene (carcinogen) may form if heated in air above 300°F (149°C). Provide ventilation to control vapor exposure within inhalation guidelines when handling at elevated temperatures. Review the OSHA benzene regulation for detailed information on safe handling requirements. Avoid eye contact.

12 ECOLOGICAL INFORMATION

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability No data available on the degradability of this product.

Bioaccumulation No data available.

Mobility in Soil No data available.

Other hazardous effects No other adverse environmental effects are known.

13 DISPOSAL CONSIDERATIONS

Residual Waste: Dispose in accordance with applicable federal, state, and local regulations.

Contaminated Packaging: Empty containers of this material may contain residual liquid, vapors or dust. Precautions previously cited should be observed with such containers. Follow label warnings even after container is emptied.

Local Disposal Regulations: No specific disposal method required. Dispose in accordance with applicable federal, state, and local regulations.

14 TRANSPORT INFORMATION

General Information: The transportation classification in this section is meant as a guide to the overall classification of the product and may be subject to change as a result of varying package sizes and/or updates to the specific regulations. Consult the specific shipping requirements under the appropriate transportation authority [IMO/IMDG, ICAO/IATA, 49 CFR, TDG, etc.] to assure regulatory compliance.

DOT: Not regulated as dangerous goods.
TD*G:* Not regulated as dangerous goods.
IATA: Not regulated as dangerous goods.
IMDG: Not regulated as dangerous goods.

15 REGULATORY INFORMATION

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous No
SARA 313 (TRI reporting)
Not regulated.

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act
(SDWA)
Not regulated.

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US. Massachusetts RTK - Substance List
Not regulated.

US. New Jersey Worker and Community Right-to-Know Act
Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.
WHMIS Classification: Non-controlled

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes

New Zealand	New Zealand Inventory	Yes
Philippine	Inventory of Chemicals and Chemical Substances PICCS) Philippines	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16 OTHER INFORMATION

Hazard Ratings

	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
NFPA	1	1	0	--

	Health Hazard	Fire Hazard	Reactivity Hazard
HMIS	1	1	0

0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe; * – Chronic health effect

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