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

Prepared by: Ariel Authoring Services – a 3E Company
Issue Date: 02/12/2014

DISCLAIMER OF LIABILITY:

The above information has been prepared for Goodrich Corporation by 3E Company and is a compilation of information from various sources believed to be accurate. As the conditions or methods of use are beyond our control, Goodrich Corporation and 3E Company do not assume any responsibility and expressly disclaim any liability for any use of the materials described herein. Information contained herein is believe to be true and accurate, but all statements or suggestions are made without warranty, express or implied, regarding the accuracy of the information, the hazards connected with the use of the material or the results obtained from the use thereof. Compliance with all applicable, Federal, State, and Local regulations remains the responsibility of the user.

Safety Datasheet

Section 1—Chemical Product and Company Identification

Product Identifier: Shinemaster Cosmetic, Goodrich Part No. 74-451-178 (Contained in Goodrich Kit 74-451-Z)

Product Use: Aerospace Coating

Supplier: Goodrich De-icing & Specialty Systems, 1555 Corporate Woods Parkway, Uniontown, Ohio 44685, tel 330-374-4011.

Emergency Contact: Chemtrec, 800-424-9300.

Section 2—Hazards Identification

Physical Hazards:	Not Classified as Hazardous
Health Hazards:	Eye Irritation: 2A
	Skin Irritation: 2
Environmental Hazards:	Not Classified as Hazardous

Signal Word: WARNING

Symbols:

Hazard Statements: Causes serious eye irritation. Causes skin irritation.

Precautionary Statements: Wash hands thoroughly after handling. Wear eye protection/face protection, and protective gloves.
If on skin: Wash with plenty of water. If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Other Hazards: None found.

Unknown Ingredients: N/D

Section 3—Information on Ingredients

Ingredient Name	Ingredient Percentage	Ingredient CAS No
Acrylic Polymer	10-30	N/D
Product as a Whole	100	N/D

Section 4—First Aid Measures

Skin contact: If on skin or hair: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If irritation occurs, get medical attention.

Eye contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Ingestion: If swallowed: Rinse mouth. DO NOT induce vomiting. Call a doctor if you feel unwell.

Inhalation: If inhaled: Get fresh air, administer oxygen or artificial respiration if needed. Call a doctor if you feel unwell.

Most important symptoms/effects, acute and delayed: N/D

Indication of immediate medical attention/special treatment: N/D

Section 5—Fire-Fighting Measures

Suitable extinguishing media: Use water spray, dry chemical, foam or carbon dioxide.

Specific hazard arising from chemicals: Decomposition products and amounts produced will depend on decomposition conditions, but will most likely contain carbon monoxide, carbon dioxide, and traces of hydrocarbons after water evaporates.

Special equipment and precautions: Normal protective clothing. Self contained breathing apparatus should be provided to firefighters in confined spaces.

Section 6—Accidental Release Measures

Personal precaution, protective equipment, emergency procedures: Avoid contact with skin and eyes. Do not ingest. Wear Personal Protective Equipment (refer to section 8).

Methods and material for containment and clean up: Avoid release to the environment. For small spills, mop or wipe up and dispose of in DOT approved waste containers. For larger spills, contain by diking with soil or another noncombustible absorbent material. Do not flush to storm sewer or waterway. Do not flush to sanitary sewer without authorization by appropriate government officials. Dispose of all contaminated materials in accordance with Federal, State, and Local regulations.

Section 7—Handling and Storage

Precautions for safe handling: Wash thoroughly after handling, especially before eating, drinking, smoking or using restroom facilities. Wash goggles and gloves. Launder contaminated clothing. Do not swallow. Do not get in eyes.

Cautions for safe storage: Keep out of reach of children. Keep container closed when not in use.

Incompatibilities: None known

Section 8—Exposure controls/personal protection

Exposure Limits: N/D

Specific Engineering: Local exhaust to keep vapors/mist below TWA or permissible limits.

Individual protective equipment and measures: Gloves: Resistant GLOVES (ie. Butyl, PVC, etc.). Respiratory: NIOSH approved respirator should be worn if needed. Eye Protection: Goggles. Footwear: N/A. Clothing: Appropriate to prevent EYE and skin contact. Other: Have eyewash and safety shower in area.

Section 9—Physical and Chemical Properties

Physical State: Liquid	Flammability (solid, gas): Not Flammable
Color: Milky	Vapor Pressure (mmHg): 25
Odor: Slight odor	Vapor Density (air= 1): 1
Odor Threshold: N/D	Relative Density: 1.02
pH: 8	Solubilities: In water: soluble
Melting point/freezing Point: N/D	Partition Coefficient: N/D
Initial Boiling Point and Boiling Range: 212 °F	Auto-Ignition Temperature: N/D
Flash Point: 212 °F (Setaflash, Closed Cup)	Decomposition Temperature: N/D
Evaporation Rate: 1	Viscosity: N/D
Upper/Lower Flammability or Explosive limits: N/D	

Section 10—Stability and Reactivity:

Chemical Stability: Stable	Condition to Avoid: Excessive heat
Reactivity: Not Reactive	Possibility of Hazardous Reaction: Hazardous Polymerization: N/D
Incompatible Materials: None known	Hazardous Decomposition Products: Decomposition products and amounts produced will depend on decomposition conditions, but will most likely contain some carbon monoxide, carbon dioxide, and traces of hydrocarbons.

Section 11—Toxicological information:

Information on the likely routes of exposure: Skin contact, eye contact, inhalation, ingestion.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LD50
Acrylic Polymer	N/D	N/D	N/D
Product as a Whole	6,036 mg/kg	N/D	N/D

Important symptoms: Refer to Section 4—First Aid Measures.

Effects of Acute Exposure: EYE CONTACT: Liquid and/or mist can cause mild to moderate irritation. INGESTION: Can cause dizziness, nausea, vomiting and diarrhea, faintness and/or drowsiness. SKIN CONTACT: Can cause irritation (break-out/rash) on prolonged or repeated exposure. INHALATION: Can be irritating to mucous membranes.

Effects of Chronic Exposure: None Known - However, pre-existing skin, eye, and respiratory disorders may be aggravated by exposure.

Carcinogenicity: IARC, ACGIH, NTP, OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, OSHA respectively.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Other Data:

Section 12—Ecological Information:

Ecotoxicity: N/D

Persistence and degradability: N/D	Bioaccumulative Potential: N/D

Mobility in Soil: N/D	Other Adverse Effects: N/D

Section 13—Disposal Considerations

Waste Treatment Method: Avoid release to the environment. Collect spillage. DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Waste water treatment system.

Section 14—Transport Information

UN number:	UN proper shipping name:
Transport hazard class(es) :	Packing group if applicable:
Environmental hazards:	Special precautions:
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	

Section 15—Regulatory information

Section 16—Other Information

Key to Abbreviations:
no info not determined, no information found
N/D not determined, no information found

Date SDS Prepared: July 16, 2015

Suggested NFPA rating: N/D

Suggested HMIS rating: N/D, PPE=N/D. (NPCA recommends that PPE codes be determined by the employer, who is most familiar with the actual conditions under which chemicals are used at the work location.)

This information is prepared according to 29 CFR 1910.1200 and is based on typical working conditions, use of product according to label directions, and the works of others. It may not be accurate. Actual use conditions are beyond our control. Employers should make their own studies to determine the suitability of the information for their purposes. Users assume all risks of use, handling, and disposal of the product, or of publishing, use, or reliance upon, this information. We assume no liability for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.

Safety Datasheet

Section 1—Chemical Product and Company Identification

Product Identifier: Shinemaster Prep, Goodrich Part No. 74-451-179 (Contained in Goodrich Kit 74-451-Z)

Product Use: Aerospace cleaner

Supplier: Goodrich De-icing & Specialty Systems, 1555 Corporate Woods Parkway, Uniontown, Ohio 44685, tel 330-374-4011.

Emergency Contact: Chemtrec, 800-424-9300.

Section 2—Hazards Identification

Physical Hazards:	Not Classified as Hazardous
Health Hazards:	Eye Corrosion: 1
	Skin Corrosion: 1
Environmental Hazards:	Acute Aquatic Toxicity: 2

Signal Word: DANGER

Symbols:

Hazard Statements: Causes severe skin burns and serious eye damage. Toxic to aquatic life.

Precautionary Statements: Do not breathe dusts or mists. Wash hands thoroughly after handling. Wear protective gloves, protective clothing, eye protection, face protection. Avoid release to the environment.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.
Store locked up.
Dispose of contents and container in accordance with local, regional, national, international regulations.

Other Hazards: None found.

Unknown Ingredients: N/D

Section 3—Information on Ingredients

Ingredient Name	Ingredient Percentage	Ingredient CAS No
Dodecyl Benzene Sulfonic Acid	1-5	68081-81-2

Glycol Ether	1-5	111-76-2
Ammonium Hydroxide	10-30	7664-41-7
Product as a Whole	100	N/D

Section 4—First Aid Measures

Skin contact: If on skin or hair: Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a doctor.

Eye contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

Ingestion: If swallowed: Rinse mouth. DO NOT induce vomiting. Immediately call a doctor.

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.

Most important symptoms/effects, acute and delayed: N/D

Indication of immediate medical attention/special treatment: N/D

Section 5—Fire-Fighting Measures

Suitable extinguishing media: Use water spray, dry chemical, foam or carbon dioxide.

Specific hazard arising from chemicals: Decomposition products and amounts produced will depend on decomposition conditions, but will most likely contain carbon monoxide, carbon dioxide, and hydrogen cyanide.

Special equipment and precautions: Normal protective clothing. Self contained breathing apparatus should be provided to firefighters in confined spaces.

Section 6—Accidental Release Measures

Personal precaution, protective equipment, emergency procedures: Avoid contact with skin and eyes. Do not ingest. Do not inhale. Wear Personal Protective Equipment (refer to section 8).

Methods and material for containment and clean up: Avoid release to the environment. For small spills, mop or wipe up and dispose of in DOT approved waste containers. For larger spills, contain by diking with soil or another noncombustible absorbent material. Do not flush to storm sewer or waterway. Do not flush to sanitary sewer without authorization by appropriate government officials. Dispose of all contaminated materials in accordance with Federal, State, and Local regulations.

Section 7—Handling and Storage

Precautions for safe handling: Wash thoroughly after handling, especially before eating, drinking, smoking or using restroom facilities. Wash goggles and gloves. Launder contaminated clothing. Do not swallow. Do not get in eyes. Do not inhale mists or vapors.

Cautions for safe storage: Store locked up. Store in cool, dry, well ventilated place. Store in tightly closed containers. Empty containers of this material may contain residual liquid, vapors or dust. Precautions previously cited should be observed with such containers. Dispose of in accordance with all Federal, State, and Local regulations.

Incompatibilities: N/D

Section 8—Exposure controls/personal protection

Exposure Limits: Ammonia: OSHA (PEL): 50 ppm. ACGIH (TVL): 25 ppm.

Specific Engineering: Local exhaust to keep vapors/mist below TWA or permissible limits.

Individual protective equipment and measures: Gloves: Resistant GLOVES (ie. Butyl, PVC, etc.). Respiratory: NIOSH approved respirator should be worn if needed. Eye Protection: Goggles. Footwear: N/A. Clothing: Appropriate to prevent EYE and skin contact. Other: Have eyewash and safety shower in area.

Section 9—Physical and Chemical Properties

Physical State: Liquid	Flammability (solid, gas): Not Flammable
Color: Clear, thick	Vapor Pressure (mmHg): 560
Odor: Ammonia odor	Vapor Density (air= 1): 0.6
Odor Threshold: N/D	Relative Density: N/D
pH: N/D	Solubilities: In water: complete
Melting point/freezing Point: N/D	Partition Coefficient: N/D
Initial Boiling Point and Boiling Range: 82-105 °F	Auto-Ignition Temperature: N/D
Flash Point: N/D	Decomposition Temperature: N/D
Evaporation Rate: 1 (Butyl acetate=1)	Viscosity: N/D
Upper/Lower Flammability or Explosive limits: N/D	

Section 10—Stability and Reactivity:

Chemical Stability: Stable	Condition to Avoid: Excessive heat
Reactivity: Not Reactive	Possibility of Hazardous Reaction: Hazardous Polymerization: N/D
Incompatible Materials: N/D	Hazardous Decomposition Products: Decomposition products and amounts produced will depend on decomposition conditions, but will most likely contain some carbon monoxide, carbon dioxide, and hydrogen cyanide.

Section 11—Toxicological information:

Information on the likely routes of exposure: Skin contact, eye contact, inhalation, ingestion.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LD50
Dodecyl Benzene Sulfonic Acid	650 mg/kg	N/D	N/D
Glycol Ether	470 mg/kg	N/D	N/D
Ammonium Hydroxide	350 mg/kg	N/D	N/D
Product as a Whole	2,765 mg/kg	N/D	N/D

Important symptoms: Refer to Section 4—First Aid Measures.

Effects of Acute Exposure: Eye contact: Liquid and/or mist will cause irritation. Ingestion: will cause gastrointestinal irritation. Skin contact: May cause irritation on prolonged contact. Inhalation: May cause irritation.

Effects of Chronic Exposure: None known

Carcinogenicity: IARC, ACGIH, NTP, OSHA: No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, OSHA respectively.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Other Data: Irritancy of Product: Will Causes eye and gastrointestinal irritation. Sensitizing Capability of Product: N/D: N/D. Reproductive Toxicity: N/D. Teratogenicity: N/D. Embryotoxicity: N/D. Mutagenicity: N/D. Name of Synergistic Products/Effects: N/D.

Section 12—Ecological Information:

Ecotoxicity: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
Ammonium hydroxide: Harmful to aquatic life in very low concentrations. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Do not contaminate any body of water by direct application, cleaning of equipment or disposal.

Persistence and degradability: N/D	Bioaccumulative Potential: N/D
Mobility in Soil: N/D	Other Adverse Effects: N/D

Section 13—Disposal Considerations

Waste Treatment Method: Avoid release to the environment. Collect spillage. DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. Waste water treatment system.

Section 14—Transport Information

UN number:	UN proper shipping name:
Transport hazard class(es) :	Packing group if applicable:
Environmental hazards:	Special precautions:
Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	

Section 15—Regulatory information

DOT Classification: Not Regulated. WHMIS Classification: D-1, D-2.

Section 16—Other Information

Key to Abbreviations:
no info not determined, no information found
N/D not determined, no information found

Date SDS Prepared: July 1, 2015

Suggested NFPA rating: N/D

Suggested HMIS rating: H-1, F-0, R-1, PPE=N/D. (NPCA recommends that PPE codes be determined by the employer, who is most familiar with the actual conditions under which chemicals are used at the work location.)

This information is prepared according to 29 CFR 1910.1200 and is based on typical working conditions, use of product according to label directions, and the works of others. It may not be accurate. Actual use conditions are beyond our control. Employers should make their own studies to determine the suitability of the information for their purposes. Users assume all risks of use, handling, and disposal of the product, or of publishing, use, or reliance upon, this information. We assume no liability for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.

Safety Data Sheet

1. Identification

a. Product Identifier: Age-Master No.1 Rubber Protectant
b. Recommended Use: Protection of rubber from weathering, oxidation and ozone attack.
c. Manufacturer: Chem-Pro, Inc.
PO Box 5745
Midlothian, VA, 23112 USA
(804) 744-4869
d. Emergency Phone number: (804) 744-4869; (804) 356-4559

2. Hazards Identification

a. Classification of the Mixture:
i. Flammable Liquids – Category 4
ii. Acute Toxicity – Oral – Category 4
iii. Acute Toxicity - Dermal – Category 4
iv. Acute Toxicity – Inhalation – Category 4
v. Eye Damage/Irritation – Category 2B
vi. Aspiration Hazard – Category 1
b. GHS Label Element: Hazard pictograms

c. Signal Word: Danger
d. Hazard Statements:
i. Combustible liquid.
ii. Harmful if swallowed.
iii. Harmful in contact with skin.
iv. Harmful if inhaled.
v. Causes eye irritation.
vi. May be fatal if swallowed and enters airways.
vii. May cause drowsiness and dizziness.
e. Precautionary Statements:
i. Prevention:
1. Keep away from flames, hot surfaces, sparks, pilot lights and other ignition sources. No smoking.
2. Wear protective gloves/eye protection/face protection/ clothing: heavy duty, nitrile rubber gloves; chemical worker's goggles or face shield; organic vapor respirator when working in confined areas (approval TC-23C-107 or equivalent); coveralls or apron.
3. Avoid breathing vapors.
4. Use only outdoors or in a well ventilated area.
5. Wash hands and clothing thoroughly after handling.
ii. Response:
1. IN CASE OF FIRE: Use regular foam, carbon dioxide or dry chemical extinguishing media.

2. IF SWALLOWED: Immediately call a poison center or physician. Rinse mouth. DO NOT induce vomiting.
3. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.
4. IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Call a poison center or physician if you feel unwell.
5. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

iii. Storage:
1. Store in well ventilated place. Keep cool.
2. Store locked up.
3. Keep container tightly closed.

iv. Disposal:
1. Dispose of contents and container to an approved waste disposal plant.

v. Hazards not otherwise classified: None known.

3. Composition/Information on Ingredients

a. Ingredients: Trade Secret – Petroleum Hydrocarbons, Hydrotreated Light,
i. Cycloalkanes 40 - 70%
ii. Alkanes 10 – 50

b. Specific chemical identity and percentages are withheld as a trade secret.

4. First Aid Measures

a. INHALATION: Remove person to fresh air. Do not induce vomiting. Keep person warm.
b. INGESTION: Wash out mouth with water. Aspiration hazard if swallowed. Can enter lungs and cause damage. DO NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately.
c. SKIN: Remove product from skin with waterless soap, wipe clean, and then follow with warm water and regular soap. Remove contaminated clothing and wash before reuse.
d. EYES: Flush affected eye with water for fifteen (15) minutes. Get medical attention.
e. <u>Most important symptoms/effects, acute and delayed:</u>
i. Inhalation: May cause headache, difficulty in breathing, nausea, fatigue, nose / throat irritation, dizziness.
ii. Ingestion: May cause nausea, vomiting, diarrhea, gastrointestinal irritation
iii. Skin contact: Prolonged or repeated contact can cause moderate irritation, redness, or dermatitis.
iv. Eye contact: Can cause severe irritation, redness, tearing, and blurred vision.
f. Notes to Physician: If ingested, this material presents an aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation.

5. Fire-Fighting Measures

a. Specific hazards arising from the chemical: Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst with risk of a subsequent explosion. Vapors are heavier than air and will spread along the ground, and may be moved by ventilation and ignited by heat, pilot lights, sparks or flame.
b. Suitable extinquishing media: Regular foam, carbon dioxide or dry chemical.
c. Unsuitable extinguishing media: Do not use water.

d. Hazardous Combustion Products: Liquid may decompose to poisonous gasses of CO, CO_2, NO_X, and smoke.
e. Protection of Fire Fighters – Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate the area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles. Cover pooling liquid with foam. Containers can build pressure if exposed to radiant heat; cool adjacent containers with spray of water until well after the fire is out. Withdraw immediately from the area if there is a rising sound from venting safety device or discoloration of containers. Be aware that burning liquid may float on water. Notify appropriate authorities of potential fire and explosion hazard if liquid enters sewers or waterways.
f. Explosion data - sensitivity to mechanical impact: Not available.
g. Explosion data - sensitivity to static discharge: Not available.

6. Accidental Release Measures

a. Personal precautions, protective equipment and emergency procedures:
    i. Remove all sources of ignition. No smoking. Extinguish pilot lights.
    ii. Ensure adequate ventilation.
    iii. Use personal protective equipment. Wear protective gloves/eye protection/face protection/ clothing: heavy duty, nitrile rubber gloves; chemical worker's goggles or face shield; organic vapor respirator when working in confined areas (approval TC-23C-107 or equivalent); coveralls or apron.
    iv. Beware of combustible, toxic vapors accumulating in low areas.
b. Methods and materials for containment and cleanup: Standard procedures for hydrocarbon spills apply to this product.
    i. Use spark-proof tools and explosion-proof equipment.
    ii. Prevent flow of liquid into drains, waterway or sewer.
    iii. Use oil absorbent material to clean spills. Use floating absorbent to remove liquid from water.
    iv. Work from up-wind side of spill area.
    v. Transfer wet absorbent into container for disposal.
    vi. Incinerate as solid waste at a licensed waste disposal facility.

7. Handling and Storage

a. Precautions for safe handling:
    i. No smoking. Use appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapors. Avoid release into the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate or working in confined area. Local exhaust recommended for confined areas. Keep container tightly closed when not in use. Use in well ventilated area away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical equipment. Use non-sparking tools. FOLLOW ESTABLISHED PLANT SAFETY REGULATIONS AND PROCEDURES FOR HANDLING COMBUSTIBLES (OSHA 1910)
    ii. Application procedures: Apply using a brush, cloth applicator pad, or by dipping the rubber product to be treated. Mask or otherwise protect areas not intended to be treated o avoid unwanted staining. Spilled material may stain or discolor surfaces.
b. Conditions for safe storage: Keep container tightly closed when not in use. Store in well ventilated area away from heat, sparks, open flame or any other ignition source. Storage above 75C is not recommended. No smoking.

8. Exposure Controls / Personal Protection

a. Occupational exposure limits:
   ACGIH TLV (United States) 179 ppm (1200 mg/m^3) 8 hours
b. Appropriate engineering controls: Use with adequate ventilation. Use local exhaust ventilation in confined areas. Use explosion-proof ventilation equipment.
c. Individual protection measures:
   i. Hygiene measures: When using, do not eat, drink or smoke. Use waterless soap on hands after handling Wash hands and face thoroughly with regular soap and water before eating, smoking and using the lavatory and at the end of the working period. Remove and wash contaminated clothing before reuse.
   ii. Eye protection: Chemical worker's goggles or face shield.
   iii. Skin protection: Chemical resistant gloves should be worn to protect hands; Nitrile gloves recommended. Apron and lightweight impervious clothing for other skin protection. (may temporarily stain and discolor skin.)
   iv. Respiratory protection: Organic vapor respirator when working in confined areas (approval TC-23C-107 or equivalent).

9. Physical and Chemical Properties

a. Physical State: Liquid; Color: Dark red to Black
b. Odor: Characteristic mild hydrocarbon solvent odor
c. Odor Threshold: Not available
d. pH: Not available
e. Melting Point/ Freezing Point: Not applicable
f. Initial Boiling Point/Boiling Range: 204 C (400 F)
g. Flash Point: 63 – 65 C / 143 – 146 F (Tag CC ASTM D-56)
h. Evaporation Rate (Butyl Acetate = 1): <1
i. Flammability (solid/gas): No data available
j. Upper/Lower Flammable Limit: No data available
k. Vapor Pressure (mm Hg.) @ 20 C (68 F): 2.6
l. Vapor Density (Air = 1): 5.4
m. Specific Gravity: 0.8
n. Solubility in Water: Insoluble / Nil
o. Partition Coefficient n-octanol/water: Not Available
p. Auto-Ignition Temperature: >220 C (>428 F)
q. Decomposition Temperature: No data available
r. Viscosity: Not available
s. V.O.C.: 0.8 gm/l; 0.01 lb/gal

10. Stability and Reactivity

a. Reactivity: No dangerous reaction known under conditions of normal use.
b. Chemical Stability: Stable. Shelf life > 3years.
c. Possibility of Hazardous Reactions: Hazardous reactions will not occur under normal conditions of storage and use.
d. Conditions to avoid:
   i. Keep away from heat, flame sparks and other ignition sources.
   ii. Do not allow vapors to accumulate in low or confined areas.
e. Incompatible Materials: Strong oxidizing agents.
f. Hazardous Decomposition Products: May form toxic materials: CO, CO_2, NO_X
g. Hazardous polymerization WILL NOT occur

11. Toxicological Information

a. Irritation:
   i. Eyes: Can cause severe irritation, redness, tearing and blurred vision.
   ii. Skin: Prolonged contact may cause slight to moderate irritation.
   iii. Inhalation: Prolonged exposure may cause dizziness, nausea, headache, or fatigue.
   iv. Ingestion: May cause nausea, vomiting, diarrhea, or gastrointestinal irritation.
b. Potential Chronic Health Effects: No known significant effects or critical hazards.
c. Sensitization: Not available
d. Toxicity:
   i. LD50:
      1. Oral: Acute >5000 mg/kg (Rat)
      2. Dermal: Acute >2000 mg/kg (Rabbit)
   ii. LC50: Acute not available

e. Carcinogenicity: This product and its ingredients are not listed in the National Toxicology Program (NTP) Report on Carcinogens, have not been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs, and have not been found to be a potential carcinogen by OSHA.
f. Germ Cell Mutagenicity: Not Mutagenic (in vitro, in vivo).
g. Target Organ Effects: No data available.

12. Ecological Information

a. This product is potentially toxic to freshwater and saltwater ecosystems. Do not discharge into aquatic environments. In its liquid state this product will normally float on water.
b. Persistence and Degradability: Not available.
c. Bioaccumulative Potential: Not available.
d. Mobility in Soil: Not available.
e. Other Adverse Effects: No known significant effects or critical hazards.

13. Disposal Considerations

a. Use oil absorbent material to absorb liquid product.
b. Incinerate as solid waste at a licensed waste disposal facility.
c. Empty containers should be taken to a licensed waste handling site for recycling or disposal.
d. Do not cut, weld, or grind used containers unless they have been thoroughly cleaned internally.
e. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information.

a. US DOT: UN 1268, Petroleum Distillate n.o.s., Coating Solution, Combustible Liquid, PG III, RQ None; US DOT Hazard Class Combustible Liquid. See Remarks below.

   HMIS Rating: HEALTH 2, FLAM 2, RACT. 0.

b. IMDG: UN 1268, Combustible Liquid; FP > 61 C;
   Not an Inflammable Liquid; Not a Dangerous Good.

c. IATA: UN 1268, Petroleum Distillates, Combustible Liquid; FP > 61 C; Not an Inflammable Liquid.

d. Remarks:

i. US DOT Hazard Class Combustible Liquid. Hazardous Material but not a Hazardous Substance per CFR 49 Sec. 171.8. Not restricted under 49 CFR in containers less than 119 GL capacity for transport by land, 8 GL for transport by passenger aircraft, or 58 GL for transport by cargo aircraft. Exempt from CFR 49 Hazardous Material Requirements per Sec 173.150 (b), (c) and (f).
ii. Not listed in US DOT Marine Pollutant list Appendix B to CFR 49 Sec. 172.101. Therefore, not regulated as a Marine Pollutant by US DOT.

15. Regulatory Information

a. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.
b. US Federal Regulations:
   i. United States inventory (TSCA) - All components are listed or exempted.
   ii. SARA 302/304: Not Applicable.
   iii. SARA 311/312: Fire Hazard; Acute Health Hazard.
c. International Regulations:
   i. Australia inventory (AICS) - All components are listed or exempted.
   ii. Canada inventory (DSL) - All components are listed or exempted.
   iii. Canada (WHMIS) – Class B-3, Combustible Liquid with flash point between 37.8C (100 F) and 93.3 C (200F).
   iv. China inventory (IECSC) - All components are listed or exempted.
   v. Japan inventory - All components are listed or exempted.
   vi. Korea inventory (KECI) - All components are listed or exempted.

16. Other Information.

a. SDS Prepared By: Chem-Pro Manufacturing Co., Inc.,
   PO Box 5745
   Midlothian, VA, 23112 USA
   Tel. (804) 744/4869
b. Revision Date: July 1, 2015
c. Disclamer.

The information contained in this Material Safety Data Sheet is based on current knowledge, experience, and sources believed to be reliable. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental and regulatory obligations under any applicable laws. The actual conditions or methods of handling, storage, use and disposal of the product are beyond the knowledge and control of Chem-Pro Manufacturing Co., Inc. For this and other reasons Chem-Pro Manufacturing Co., Inc. does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of the product.