

1. Identification

Product identifier	Goodrich SILVERboot™ Polish
Other means of identification	
Product code	0500NH15
Synonyms	Goodrich Part No. 74-451-239-16
Recommended use	Polish.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Supplier	
Company name	Goodrich Corporation UTC Aerospace Systems Sensors and Integrated Systems (Formerly De-icing and Specialty Systems)
Address	1555 Corporate Woods Parkway Uniontown, Ohio 44685 USA
E-mail	Terry.Sluss@utas.utc.com
Contact name	EH&S Manager
Telephone number	(330)374-4011
Emergency telephone number	(800)424-9300

2. Hazard(s) identification

Physical hazards	Flammable liquids	Category 4
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Specific target organ toxicity, repeated exposure	Category 1 (Central Nervous System)
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 3
	Hazardous to the aquatic environment, long-term hazard	Category 3
OSHA defined hazards	Not classified.	

Label elements



Signal word	Danger
Hazard statement	Combustible liquid. Causes skin irritation. Causes serious eye irritation. Causes damage to organs (Central Nervous System) through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Keep away from flames and hot surfaces-No smoking. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/eye protection/face protection. Avoid release to the environment.

Response	If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. 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 advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Ammonium hydroxide	1336-21-6	0.1 - < 0.2
Naphtha (petroleum), hydrotreated heavy	64742-48-9	15-25
Kaolin (with >= 0.1% crystalline silica)	1332-58-7	10-20
Lauric acid	143-07-7	1-5
Stoddard solvent	8052-41-3	<2
Quartz	14808-60-7	<1
Titanium dioxide	13463-67-7	<1
Ethylbenzene	100-41-4	<0.1

Composition comments All concentrations are in percent by weight. Components not listed are either non-health-hazardous or are below reportable limits.

4. First-aid measures

Inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Narcosis. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, hazardous combustion products are released that may include: Carbon oxides (CO _x). Aluminum oxides. Titanium oxide. Silicon oxides. Metal oxides.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. 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.
General fire hazards	Combustible liquid.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

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

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Ethylbenzene (CAS 100-41-4)	PEL	435 mg/m ³	
Kaolin (with >= 0.1% crystalline silica) (CAS 1332-58-7)	PEL	100 ppm	Respirable fraction.
		5 mg/m ³	
Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	PEL	15 mg/m ³	Total dust.
		400 mg/m ³	
Quartz (CAS 14808-60-7)	PEL	100 ppm	Respirable dust.
		0.05 mg/m ³	
Stoddard solvent (CAS 8052-41-3)	PEL	2900 mg/m ³	
		500 ppm	
Titanium dioxide (CAS 13463-67-7)	PEL	15 mg/m ³	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Kaolin (with >= 0.1% crystalline silica) (CAS 1332-58-7)	TWA	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
Quartz (CAS 14808-60-7)	TWA	15 mppcf	Respirable fraction.
		0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.
Titanium dioxide (CAS 13463-67-7)	TWA	2.4 mppcf	Respirable.
		5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Ammonium hydroxide (CAS 1336-21-6)	STEL	35 ppm	
Ethylbenzene (CAS 100-41-4)	TWA	25 ppm	
	TWA	20 ppm	
Kaolin (with >= 0.1% crystalline silica) (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.
Stoddard solvent (CAS 8052-41-3)	TWA	100 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Ammonium hydroxide (CAS 1336-21-6)	STEL	27 mg/m ³	
		35 ppm	
		18 mg/m ³	
Ethylbenzene (CAS 100-41-4)	STEL	25 ppm	
		545 mg/m ³	
		125 ppm	
Kaolin (with >= 0.1% crystalline silica) (CAS 1332-58-7)	TWA	435 mg/m ³	
		100 ppm	
		5 mg/m ³	Respirable.
Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)	TWA	10 mg/m ³	Total
		400 mg/m ³	
		100 ppm	
Quartz (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust.
		1800 mg/m ³	
		350 mg/m ³	
Stoddard solvent (CAS 8052-41-3)	Ceiling		

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Skin protection

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. 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.

Form Liquid.

Color Off-white to tan.

Odor Faint mineral spirits.

Odor threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density 1.026 (H₂O = 1)

Solubility(ies)

Solubility (water) Not available.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
VOC	4.69 lb/gal (less water and exempt solvents)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Narcosis. Behavioral changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Ammonium hydroxide (CAS 1336-21-6)		
Acute		
Oral		
LD50	Rat	350 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	15400 mg/kg
Inhalation		
LC50	Rat	17.4 mg/m ³ , 4 Hours
Oral		
LD50	Rat	35000 - 47000 mg/kg
Kaolin (with >= 0.1% crystalline silica) (CAS 1332-58-7)		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg
Inhalation		
LC50	Rat	> 2 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

Components	Species	Test Results
Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)		
Acute		
Dermal		
LD50	Rabbit	> 3160 mg/kg
Titanium dioxide (CAS 13463-67-7)		
Acute		
Inhalation		
LC50	Rat	3.43 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
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	Due to the form of the product, exposure to the potentially carcinogenic components is not expected.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Ethylbenzene (CAS 100-41-4)	2B Possibly carcinogenic to humans.	
Quartz (CAS 14808-60-7)	1 Carcinogenic to humans.	
Stoddard solvent (CAS 8052-41-3)	3 Not classifiable as to carcinogenicity to humans.	
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.	
NTP Report on Carcinogens		
Quartz (CAS 14808-60-7)	Known To Be Human Carcinogen.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Quartz (CAS 14808-60-7)	Cancer	
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	Causes damage to organs (Central Nervous System) through prolonged or repeated exposure.	
Aspiration hazard	If aspirated into lungs during swallowing or vomiting, may cause chemical pneumonia, pulmonary injury or death.	
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.	

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components	Species	Test Results
Ammonium hydroxide (CAS 1336-21-6)		
Aquatic		
Crustacea	LC50	Daphnia magna
		0.66 mg/l, 48 hours
Ethylbenzene (CAS 100-41-4)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna)
		1.81 - 2.38 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)
		4.2 mg/l, 96 hours
<i>Chronic</i>		
Crustacea	EC50	Ceriodaphnia dubia
		3.6 mg/l, 7 days

Components	Species	Test Results
Kaolin (with >= 0.1% crystalline silica) (CAS 1332-58-7)		
Aquatic		
<i>Acute</i>		
Crustacea	LC50	Daphnia magna > 1.1 g/l, 48 Hours
Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Pimephales promelas 8.2 mg/l, 96 hours

Persistence and degradability No data available.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Ethylbenzene (CAS 100-41-4)	3.15
Lauric acid (CAS 143-07-7)	4.2
Stoddard solvent (CAS 8052-41-3)	3.16 - 7.15

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	NA1993
UN proper shipping name	Combustible liquid, n.o.s. (Naphtha (petroleum), hydrotreated heavy)
Transport hazard class(es)	
Class	Combustible liq
Subsidiary risk	-
Label(s)	None
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, T1, T4, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	241

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All the components are listed on or are exempt from the inventory.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Quartz (CAS 14808-60-7)

Cancer
lung effects
immune system effects
kidney effects**CERCLA Hazardous Substance List (40 CFR 302.4)**

Ammonium hydroxide (CAS 1336-21-6)

LISTED

Ethylbenzene (CAS 100-41-4)

LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical Yes**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Ethylbenzene	100-41-4	<0.1

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Ethylbenzene (CAS 100-41-4)

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**

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Cumene (CAS 98-82-8)

Ethylbenzene (CAS 100-41-4)

Naphthalene (CAS 91-20-3)

Quartz (CAS 14808-60-7)

Titanium dioxide (CAS 13463-67-7)

Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Ammonium hydroxide (CAS 1336-21-6)

Ethylbenzene (CAS 100-41-4)

Kaolin (with \geq 0.1% crystalline silica) (CAS 1332-58-7)

Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Quartz (CAS 14808-60-7)

Stoddard solvent (CAS 8052-41-3)

Titanium dioxide (CAS 13463-67-7)

US. New Jersey Worker and Community Right-to-Know Act

Ammonium hydroxide (CAS 1336-21-6)

Ethylbenzene (CAS 100-41-4)

Kaolin (with \geq 0.1% crystalline silica) (CAS 1332-58-7)

Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Quartz (CAS 14808-60-7)

Stoddard solvent (CAS 8052-41-3)

Titanium dioxide (CAS 13463-67-7)

US. Pennsylvania Worker and Community Right-to-Know Law

Ammonium hydroxide (CAS 1336-21-6)

Ethylbenzene (CAS 100-41-4)

Kaolin (with \geq 0.1% crystalline silica) (CAS 1332-58-7)

Quartz (CAS 14808-60-7)

Stoddard solvent (CAS 8052-41-3)

Titanium dioxide (CAS 13463-67-7)

US. Rhode Island RTK

Ethylbenzene (CAS 100-41-4)

Kaolin (with $\geq 0.1\%$ crystalline silica) (CAS 1332-58-7)

Naphtha (petroleum), hydrotreated heavy (CAS 64742-48-9)

Quartz (CAS 14808-60-7)

Stoddard solvent (CAS 8052-41-3)

Titanium dioxide (CAS 13463-67-7)

16. Other information, including date of preparation or last revision

Issue date 21-February-2017

Revision date -

Version # 01

HMIS® ratings Health: 2*
Flammability: 2
Physical hazard: 0

NFPA ratings



Disclaimer

Goodrich Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.