MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name **Seal-Loc (4350)**

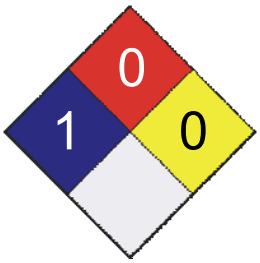
CAS # Mixture

Product use Thread Sealing Compound

Manufacturer Nu-Calgon
2008 Altom Court
St. Louis, MO 63146 US
Phone: 314-469-7000 / 800-554-5499
Emergency Phone: 1-800-424-9300 (CHEMTREC)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	1
Flammability		1
Physical Hazard		0
Personal Protection		X



2. Hazards Identification

Emergency overview WARNING
EYE AND SKIN IRRITANT.
CONTAINS MATERIAL WHICH MAY CAUSE CANCER. May cause chronic toxic effects.

Potential short term health effects

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Eyes May cause irritation.

Skin May cause irritation.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion May cause stomach distress, nausea or vomiting.

Target organs Eyes. Lungs. Respiratory system. Stomach.

Chronic effects Prolonged or repeated exposure can cause drying, defatting and dermatitis. Fibrosis was observed in rats exposed to 6 mg/m3 of hydrous magnesium silicate (talc) for 113 or 122 weeks. Chronic respiratory disease has been observed in workers exposed to up to 3.0 mg/m3 of airborne talc ore free of asbestos and silica.

Signs and symptoms Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Foots oil (petroleum)	64742-67-2	30 - 60
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	30 - 60
Residual oils (petroleum), hydrotreated	64742-57-0	30 - 60
Residual oils (Petroleum), solvent-dewaxed	64742-62-7	30 - 60
Hydrous magnesium silicate	14807-96-6	10 - 30
Kaolin	1332-58-7	10 - 30
P-Aramide	26125-61-1	1 - 5
Titanium oxide	13463-67-7	1 - 5
Silica, amorphous, fumed, crystalline free	112945-52-5	0.5 - 1.5

4. First Aid Measures

First aid procedures

Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.
Notes to physician	Symptoms may be delayed.
General advice	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. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Fog. Water spray. Carbon dioxide. Dry chemical. Foam.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material.
Storage	Keep out of reach of children. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Foots oil (petroleum)	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Hydrous magnesium silicate	**ACGIH-TLV** TWA: 2 mg/m3 **OSHA-PEL** Not established
Kaolin	**ACGIH-TLV** TWA: 2 mg/m3 **OSHA-PEL** TWA: 15 mg/m3
Lubricating oils, petroleum, hydrotreated spent	**ACGIH-TLV** Not established **OSHA-PEL** Not established
P-Aramide	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Residual oils (petroleum), hydrotreated	**ACGIH-TLV** Mist: 5 mg/m3 **OSHA-PEL** Not established
Residual oils (Petroleum), solvent-dewaxed	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Silica, amorphous, fumed, crystalline free	**ACGIH-TLV** Not established **OSHA-PEL** TWA: 6 mg/m3
Titanium oxide	**ACGIH-TLV** TWA: 10 mg/m3 **OSHA-PEL** TWA: 15 mg/m3

Engineering controls General ventilation normally adequate.

Personal protective equipment

Eye / face protection Wear safety glasses with side shields.

Hand protection Rubber gloves. Confirm with a reputable supplier first.

Skin and body protection As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical & Chemical Properties

Appearance	paste
Color	Blue
Form	paste
Odor	Odorless
Odor threshold	Not available
Physical state	Liquid
pH	Not available
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	1.2
Octanol/water coefficient	Not available
Solubility (H2O)	Insoluble
Auto-ignition temperature	Not available
VOC (Weight %)	Not available
Viscosity	Viscous
Percent volatile	Not available

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Foots oil (petroleum)	Not available
Hydrous magnesium silicate	Not available
Kaolin	Not available
Lubricating oils, petroleum, hydrotreated spent	Not available
P-Aramide	Not available
Residual oils (petroleum), hydrotreated	Not available
Residual oils (Petroleum), solvent-dewaxed	2 mg/l/4h rat
Silica, amorphous, fumed, crystalline free	Not available
Titanium oxide	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Foots oil (petroleum)	15000 mg/kg rat
Hydrous magnesium silicate	Not available
Kaolin	Not available
Lubricating oils, petroleum, hydrotreated spent	2000.0001 mg/kg rat
P-Aramide	Not available
Residual oils (petroleum), hydrotreated	> 5000 mg/kg rat
Residual oils (Petroleum), solvent-dewaxed	5000 mg/kg rat
Silica, amorphous, fumed, crystalline free	3160 mg/kg rat
Titanium oxide	24000 mg/kg rat

Effects of acute exposure

Eye May cause irritation.

Skin May cause irritation.

Inhalation Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

Ingestion May cause stomach distress, nausea or vomiting.

Sensitization Non-hazardous by WHMIS/OSHA criteria.

Chronic effects Fibrosis was observed in rats exposed to 6 mg/m3 of hydrous magnesium silicate (talc) for 113 or 122 weeks. Chronic respiratory disease has been observed in workers exposed to up to 3.0 mg/m3 of airborne talc ore free of asbestos and silica.

Carcinogenicity Contains a potential carcinogen.
High concentrations of pigment-grade (powdered) and ultrafine titanium dioxide (titanium oxide) dust have caused respiratory tract cancer in rats exposed by inhalation and intratracheal instillation.

ACGIH - Threshold Limit Values - Carcinogens

Hydrous magnesium silicate	14807-96-6	A4 - Not Classifiable as a Human Carcinogen (containing no asbestos fibers); A1 - Confirmed Human Carcinogen (containing asbestos fibers)
Kaolin	1332-58-7	A4 - Not Classifiable as a Human Carcinogen
Titanium oxide	13463-67-7	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 2B (Possibly Carcinogenic to Humans)

Titanium oxide	13463-67-7	Monograph 93 posted, Monograph 47 [1989]

IARC - Group 3 (Not Classifiable)

Hydrous magnesium silicate	14807-96-6	Monograph 93 [in preparation] (inhaled), Supplement 7 [1987], Monograph 42 [1987]
P-Aramide	26125-61-1	Monograph 68 [1997] (listed under para-Aramid fibrils)
Silica, amorphous, fumed, crystalline free	112945-52-5	Monograph 68 [1997] (listed under Amorphous silica)

Mutagenicity Non-hazardous by WHMIS/OSHA criteria.

Reproductive effects Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Fish Species Data

Hydrous magnesium silicate	14807-96-6	96 Hr LC50 Brachydanio rerio: >100 g/L [semi-static]
Lubricating oils, petroleum, hydrotreated spent	64742-58-1	96 Hr LC50 Brachydanio rerio: 79.6 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas: 3.2 mg/L [semi-static]
Residual oils (Petroleum), solvent-dewaxed	64742-62-7	96 Hr LC50 Pimephales promelas: >5000 mg/L

Ecotoxicity - Water Flea Data

Residual oils (Petroleum), solvent-dewaxed	64742-62-7	48 Hr EC50 Daphnia magna: >1000 mg/L

Environmental effects Not available

Aquatic toxicity Not available

Persistence / degradability Not available

Bioaccumulation / accumulation Not available

Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Not regulated as dangerous goods.

15. Regulatory Information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
US Federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes

Clean Air Act (CAA)	Not available
Clean Water Act (CWA)	Not available
Safe Drinking Water Act (SDWA)	Not available
Drug Enforcement Agency (DEA)	Not available
Food and Drug Administration (FDA)	Not available
WHMIS status	Controlled
WHMIS classification	Class D - Division 2A, 2B

WHMIS labeling

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Hydrous magnesium silicate	14807-96-6	Present (exempt except when inhalable dust is present or can be generated)

U.S. - Massachusetts - Right To Know List

Hydrous magnesium silicate	14807-96-6	Present (exempt when encapsulated or if particulates are not present and cannot be substantially generated through use of the product)
Kaolin	1332-58-7	Present (dust, exempt when encapsulated or if particulates are not present and cannot be substantially generated through use of the product)
Titanium oxide	13463-67-7	Present

U.S. - Minnesota - Hazardous Substance List

Hydrous magnesium silicate	14807-96-6	Present (fibrous, nonasbestiform, and respirable)
Kaolin	1332-58-7	Present (dust)
Titanium oxide	13463-67-7	Present (dust)

U.S. - New Jersey - Right to Know Hazardous Substance List

Hydrous magnesium silicate	14807-96-6	sn 1773
Silica, amorphous, fumed, crystalline free	112945-52-5	Sn 2643 (flammable, liquid, toxic, flash point less than 23°C); sn 2642 (flammable, liquid, toxic, flash point between 23°C and 61°C); sn 2644 (liquid, toxic); sn 2645 (solid, toxic)
Titanium oxide	13463-67-7	sn 1861

U.S. - Pennsylvania - RTK (Right to Know) List

Hydrous magnesium silicate	14807-96-6	Present
Kaolin	1332-58-7	Present
Titanium oxide	13463-67-7	Present

U.S. - Rhode Island - Hazardous Substance List

Hydrous magnesium silicate	14807-96-6	Toxic
Kaolin	1332-58-7	Toxic
Titanium oxide	13463-67-7	Toxic

Inventory name

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date 21-Jul-2011

Effective date 21-Jul-2011

Expiry date 21-Jul-2014

Prepared by Nu-Calgon Technical Service (314) 469-7000