

Safety Data Sheet

RO-59tm8

Date: 07/30/2019

Version: 2

1. Identification

GHS product identifier RO-59tm8
Alternate Names PTFE

Relevant identified uses of the substance or mixture and uses advised against

Intended use Deposits PTFE coating on aluminum surfaces.
Application Method See Technical Data Sheet.

Restrictions on use Do not use in medical applications involving permanent implantation in the human body.

Details of the supplier of the safety data sheet

Company Name U.S. Specialty Color Corporation
C/O: RO-59, Inc.
One Cabot Place
Stoughton, MA 02072

Emergency

24 hour Emergency Telephone No. 1-800-424-9300
Customer Service: RO-59, Inc. 1-781-341-1222

2. Hazard(s) identification

OSHA/HCS status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture

Eye Irrit.2;H319

GHS Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

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Warning

H319: Can cause serious eye irritation.

Precautionary statements

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P281 Wear protective gloves / eye protection / face protection.

Response

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice / attention.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents / container in accordance with local / national regulations.

Other hazards

The following percentage of the mixture consist of ingredient(s) with unknown acute toxicity: 3.15%

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and

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Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Octamethylcyclotetrasiloxane CAS Number(s): 556-67-2	0.1-0.24	Not classified	[1]
Sodium Silicate CAS Number: 1344-09-8	1-3	Eye Irrit. 2;H319	[2]
Polytetrafluoroethylene CAS Number: 9002-84-0	1-3	Eye Irrit. 2;H319	[2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] RO-59, Inc. use insignificant amounts.

[2] This product contains no components present at levels greater than or equal to 0.1% listed by OSHA, IARC, NTP or ACGIH as a carcinogen.

Occupational exposure limits, if available, are listed in Section 8

4. First aid measures

Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Immediately flush the eyes with large amounts of water for at least 15 minutes, alternately lifting the upper and lower eyelids. After 5 minutes, if appropriate, remove contact lenses and continue flushing the eyes for an additional 15 minutes. Call a physician at once.
Skin	Wash skin thoroughly with soap and water or use a recognized skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it or wear gloves. Continue to rinse for at least 10 minutes. In all cases of doubt, or when symptoms persist, seek medical attention.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an

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unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as collar, tie, belt or waistband.

See toxicological information (Section 11)

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Water spray, Carbon dioxide (CO₂), Foam, Dry chemical

Unsuitable extinguishing media: None known

Specific hazards arising from the chemical: None known

Hazardous thermal decomposition products: Decomposition products may include the following materials:

Hydrogen fluoride toxic or highly toxic fluorides
Carbon monoxide

Special protective actions for fire-fighters: Fire-fighters should wear appropriate equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding area. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personnel protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel"

Environmental precautions: Do not allow spills to enter drains or waterways.

Methods and materials for containment and cleaning up

Small Spill: Stop Leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Large Spill: Stop leak if without risk. Move containers from spilled area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: See Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Eating and drinking and smoking should be prohibited where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure, obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the materials presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, keep tightly closed when not in use. Do not reuse container.

Advice on general

Occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities:

Store in original container and do not freeze.
Storage temperature, 50-81°F.

8. Exposure controls and personal protection

Dust (inhalable and respirable fraction)

Permissible exposure limit:

OSHA	5/mg ³	8 hr.	TWA	Respirable fraction
ACGIH - TLV	3 mg/3	8 hr.	TWA	Respirable particles

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ACGIH - TLV 10 mg/m³ 8 hr. TWA Inhalable particles

Appropriate engineering controls

Environmental exposure controls:

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

- Respiratory** If a risk assessment indicates it is necessary, and appropriate NIOSH approved, properly fitted HEPA type respirator.
- Eyes** Wear goggles and face shield.
- Skin** Wear a rubber apron. Wear clothing suitable to avoid skin contact and clean after every shift.
- Hands** Wear impermeable chemical-resistant gloves.

9. Physical and chemical properties

Appearance

Physical state:	Liquid
Color:	Milky white
Odor:	Ammoniacal
Odor threshold:	Not available
pH:	9-11
Melting point:	621-648°F
Boiling point:	212°F
Flash point:	Does not flash
Evaporation rate:	Not available
Flammability (solid, gas)	Not available
Specific gravity (Relative density):	No applicable data available.
Water solubility:	Solids are insoluble. Dispersion may be diluted.
Solubility(ies):	No applicable data available.
Partition coefficient n-octanol/water:	No applicable data available.

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Auto-ignition temperature:	520-560°C
Ignition temperature:	530-550 C
Decomposition temperature:	No applicable data available.
Viscosity, kinematic:	No applicable data available.
Viscosity:	No applicable data available
% Volatile:	35-40% Water
Limiting oxygen index:	> 95 %

10. Stability and reactivity

Reactivity: Decomposes on heating.

Chemical stability: Stable under normal circumstances.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data.

Incompatible materials: No specific data.

11. Toxicological information

Eye irritation: Eye irritation, In Vitro - Bovine

Further information: The product contains no substances classified as hazardous to health in concentrations which should be taken into account.

Polyoxyethylene alkylether

Dermal LD50: 4,971 mg/kg, Rabbit
Information given is based on data obtained from similar substances.

Oral LD50: 3,620 mg/kg, Rat
Information given is based on data obtained from similar substances.

Skin irritation: No skin irritation, Rabbit.
Information given is based on data obtained from similar substances.

Repeated dose toxicity: Oral, Rat
No toxicologically significant effects were found. Information given is based on data obtained from similar substances.

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Mutagenicity: Did not cause genetic damage in cultured bacterial cells.
Information given is based on data obtained from similar substances.

Carcinogenicity

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

12. Ecological information

Toxicity

Fish (Brachydanio rerio) LC50 (96 hour) 108 mg/l Aquatic invertebrates: (Daphnia magna) EC50 (48 hour) 1700 mg/l.

Information given is based on data obtained from similar substances.

48 h EC50: Daphnia magna (Water flea) 81.2 mg/l
Information given is based on data obtained from similar substances.

Environmental Fate

Polyoxyethylene alkylether

Biodegraability: Not biodegradable
Information given is based on data obtained from similar substances.

13. Disposal considerations

Waste disposal methods: Preferred option for disposal is to separate solids from liquid by precipitation and decanting or filtering. Dispose of dry solids in a landfill that is permitted, licensed or registered by state to manage industrial solid waste. Discharge liquid filtrate to a wastewater treatment system. Incinerate only if incinerator is capable of scrubbing our hydrogen fluoride and other acidic combustion products.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

Not classified as dangerous in the meaning of transportation regulations.

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	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	Not Applicable	Not Regulated	Not Regulated

15. Regulatory information

U.S. Federal Regulation

United States Inventory (TSCA): All components are listed or exempted.

SARA 313 Regulated Chemical(s): This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

16. Other information

Date of issue Revision: 07/30/2019

Date of previous issue: 05/01/2015

Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications. The user is responsible for ensuring that appropriate precautions are taken and for satisfying themselves that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

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