

Safety Data Sheet

This SDS is prepared in accordance with the SDS requirements of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

Date of Issue: 2019/12/18 Version: 1.0

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier
Product form: Mixture
Product Name: Pure Goop

1.2. Intended Use of the Product

Recommended Uses and Restrictions: Thread Lubricant.

1.3. Name, Address, and Telephone of the Responsible Party

Company Supplier
Swagelok Manufacturing Company, LLC Distributor, add your contact information

Swagelok Manufacturing Company, LLC 29495 F.A. Lennon Drive Solon, Ohio 44139 440-519-4000

www.swagelok.com

1.4. Emergency Telephone Number Emergency Number: Infotrac: 1-352-323-3500

SECTION 2: HAZARD IDENTIFICATION

2.1. Classification of the Substance or Mixture

GHS Classification (KR)

Health Hazards Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2

 ${\it Specific target organ\ toxicity-Single\ exposure,\ Category\ 3,\ Respiratory}$

tract irritation

2.2. Label elements

Hazard Pictograms (GHS-KR)



Signal Word (GHS-KR) : Warning

Hazard Statements (GHS-KR) : H315 - Causes skin irritation.

H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.

Precautionary Statements (GHS-KR) : P261 - Avoid breathing dust.

P264 - Wash hands, forearms, and other exposed areas thoroughly after

handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves, protective clothing, and eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P304+P340 - IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

 ${\tt P305+P351+P338-IF\ IN\ EYES:}\ Rinse\ cautiously\ with\ water\ for\ several\ minutes.\ Remove\ contact\ lenses,\ if\ present\ and\ easy\ to\ do.\ Continue$

rinsing.

P312 - Call a POISON CENTER/doctor if you feel unwell. P321 - Specific treatment (see section 4 on this SDS).

P332+P313 - If on skin and if skin irritation occurs, seek medical advice

and attention.

P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P403+P233 - Store in a well-ventilated place. Keep container tightly

closed.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional,

national, and international regulations.

2.2. Other Hazards

2019/12/18 EN (English) 1/6

Safety Data Sheet

This SDS is prepared in accordance with the SDS requirements of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

Other Hazards Which Do Not Result In Classification

Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Contains substances that are combustible dusts. May form combustible dust concentrations in air that could ignite and cause an explosion. Take appropriate precautions. Inhalation of fumes from overheating "TEFLON" PTFE may cause polymer fume fever, a temporary flu-like illness with fever, chills and sometimes cough, of approximately 24 hours duration.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixture/Substance

Distinction of Substance or Mixture : Mixture

Substance Name	CAS-No.	Formula	Concentration
Chlorotrifluoroethylene polymer	9002-83-9	(C2ClF3)x	80 - 90%
Polytetrafluoroethylene	9002-84-0	(C2F4)x	15 - 25%
Nonanedioic acid, polymer with	29408-67-1	(C9H16O4.C3H8O2)x	1 - 5%
1,2-propanediol			

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-Aid Measures After Inhalation: Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

First-Aid Measures After Skin Contact: Remove contaminated clothing. Obtain medical attention if irritation develops or persists. Immediately drench affected area with water for at least 15 minutes.

First-Aid Measures After Eye Contact: Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

First-Aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: May cause respiratory irritation. Causes skin irritation. Causes serious eye irritation.

Symptoms/Injuries After Inhalation: Irritation of the respiratory tract and the other mucous membranes. Dust may be harmful or cause irritation. Inhalation of fumes from overheating "TEFLON" PTFE may cause polymer fume fever, a temporary flu-like illness with fever, chills and sometimes cough, of approximately 24 hours duration.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Other medical advice or treatment: If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media Water spray, fog, carbon dioxide (CO₂), alcohol-resistant foam, or dry chemical. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Specific Hazards Arising From the Chemical

Fire Hazard: Combustible Dust.

Explosion Hazard: Dust explosion hazard in air.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Special Protective Equipment For Fire-Fighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Hydrogen chloride. Hydrogen Fluoride (HF). Fluorine compounds.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Other Information: Risk of dust explosion.

2019/12/18 EN (English) 2/6

Safety Data Sheet

This SDS is prepared in accordance with the SDS requirements of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures Avoid breathing dust. Avoid all contact with skin, eyes, or clothing. Avoid generating dust.

Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and

other ignition sources. No smoking.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of

dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

Environmental Precautions Prevent entry to sewers and public waters.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers

or streams. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Contact competent authorities

after a spill. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust

suppressant. Use only non-sparking tools.

Prevention Measures for

Avoid raising dust. Eliminate ignition sources. No open flames, no sparks, and no smoking.

Secondary Accidents:

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Technical Measures: Comply with applicable regulations.

Additional Hazards When Processed: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Local And General Ventilation: Ensure adequate air ventilation.

Precautions For Safe Handling: Avoid contact with skin, eyes and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Avoid creating or spreading dust. Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Incompatible Substances Or Mixtures: Refer to section 10.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area.

Material Used In Packaging/Containers: Store in original container.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure Limits/Biological Limits

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), China, and Korea

Exposure Limits/Biological Limits No data available

8.2. Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product

2019/12/18 EN (English) 3/6

Safety Data Sheet

This SDS is prepared in accordance with the SDS requirements of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear

respiratory protection.









Respiratory Protection: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Hand Protection: Wear protective gloves.

Eye And Face Protection: Chemical safety goggles.

Skin And Body Protection: Wear suitable protective clothing.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Appearance : No data available

Physical State : Solid

Molecular Mass No data available Odour No data available **Odor Threshold** No data available pН No data available No data available **Melting Point** No data available **Boiling Point** Flash Point No data available No data available **Autoignition Temperature** Vapour Pressure No data available Relative Vapour Density At 20 °C No data available No data available Solubility N-Octanol/Water Distribution Coefficient No data available **Decomposition Temperature** No data available Viscosity No data available No data available Explosive Limits (g/m³)

SECTION 10: STABILITY AND REACTIVITY

Explosive Limits (vol %)

- **10.1 Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2 Chemical Stability: Stable under recommended handling and storage conditions (see section 7).
- 10.3 Possibility Of Hazardous Reactions: Hazardous polymerization will not occur.
- **10.4 Conditions To Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation (to minimize explosion hazard).

No data available

- 10.5 Incompatible Materials: Strong acids, strong bases, strong oxidizers.
- 10.6 Hazardous Decomposition Products: None expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects - Product

Acute Toxicity Not classified.

Eye Damage/Irritation Causes serious eye irritation.

Skin Corrosion/Irritation Causes skin irritation.

Respiratory SensitizerNot classified.Skin SensitizationNot classified.Germ Cell MutagenicityNot classified.CarcinogenicityNot classified.

2019/12/18 EN (English) 4/6

Safety Data Sheet

This SDS is prepared in accordance with the SDS requirements of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

Reproductive Toxicity Not classified.

Specific Target Organ Toxicity (Single Exposure) May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure)

Aspiration Hazard

Not classified.

Not classified.

11.2 Information on Toxicological Effects - Ingredient(s)

Chlorotrifluoroethylene Polymer (9002-83-9)		
LD50 Oral Rat	> 9200 mg/kg	
LC50 Inhalation Rat	68.6 mg/l/4h	
Polytetrafluoroethylene (9002-84-0)		
IARC Group	3	

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity : Not classified. **Fish Toxicity / Other Toxicity** : No data available

Other Information : Avoid release to the environment.

12.2. Persistence and Degradability

Pure Goop		
Persistence And Degradability	Not established.	

12.3. Bioaccumulative Potential

Pure Goop		
Bioaccumulative Potential	Not established.	

12.4. Mobility in Soil No data available

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Description of Waste Materials: Container may remain hazardous when empty. Continue to observe all precautions.

Waste Treatment Methods: Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

- 14.1 In Accordance with UNRTDG Not regulated for transport
- 14.2 In Accordance with IATA Not regulated for transport
- 14.3 In Accordance with IMDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

Asia/Pacific Regulations

Chlorotrifluoroethylene Polymer (9002-83-9)

Regulatory Reference

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on the Canadian DSL (Domestic Substances List)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Polytetrafluoroethylene (9002-84-0)

Regulatory Reference

Listed on the AICS (Australian Inventory of Chemical Substances)

2019/12/18 EN (English) 5/6

Safety Data Sheet

This SDS is prepared in accordance with the SDS requirements of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

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Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Nonanedioic Acid, Polymer With 1,2-Propanediol (29408-67-1)

Regulatory Reference

Listed on the Canadian DSL (Domestic Substances List)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Japanese ISHL (Industrial Safety and Health Law)

Listed on the Korean ECL (Existing Chemicals List)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the TCSI (Taiwan Chemical Substance Inventory)

SECTION 16: OTHER INFORMATION

Revision Date : Not applicable

Revision Number : 1.0

Date of Issue : 2019/12/18

Data sources : Information and data obtained and used in the authoring of this

safety data sheet could come from database subscriptions,

official government regulatory body websites,

product/ingredient manufacturer or supplier specific

information, and/or resources that include substance specific data and classifications according to GHS or their subsequent

adoption of GHS.

Other Information : This SDS is prepared in accordance with the SDS requirements

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Korea GHS SDS

2019/12/18 EN (English) 6/6