



Blue Goop

Chemical Safety Data Sheet

The SDS is prepared in accordance with GB/T 16483, GB/T 17519 and GB 30000

Revision date: 2016/04/16

Preparation date: 2016/04/16

Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Form: Mixture

Product Name: Blue Goop

Intended Use of the Product

Recommended Uses and Restrictions: Valve lubricant. For professional use only

Name, Address, and Telephone of the Responsible Party

Company

Swagelok Manufacturing Company, LLC

29495 F.A. Lennon Drive

Solon, Ohio 44139

440-519-4000

www.swagelok.com

Emergency Telephone Number

Emergency Number: CHEMTREC: (800) 424-9300

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview:

A blue and odorless paste. Not expected to present a significant hazard under normal conditions of use. Under fire conditions, may release hazardous fumes

Classification of the Substance or Mixture

GHS classification (CN) Not classified

Health Hazard Information

Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

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

Chronic Symptoms: None expected under normal conditions of use. This product contains a component that was manufactured with formaldehyde, which may release trace amounts of formaldehyde gas in the final product application.

Physiochemical Hazard

Physical and Chemical Hazards: Not classified.

Environmental Hazard

Environmental Hazards: Not hazardous for the environment.

Other Hazards

Other Hazards Which Do not Result in Classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions
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

Mixture/Substance

Distinction of Substance or Mixture : Mixture

Name	Concentration	CAS No
Polytetrafluoroethylene	30 - 60%	9002-84-0
Formaldehyde	<= 0.007%	50-00-0

SECTION 4: FIRST AID MEASURES

First Aid

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

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

First-aid Measures Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

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

The Most Important Symptoms and Health Effects

Symptoms/Injuries: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation. Inhaling fumes of decomposition products can cause temporary influenza-like symptoms are described as "polymer fumer fever". Symptoms include fever, cough, and malaise.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: May cause slight irritation to eyes.

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

Chronic Symptoms: None expected under normal conditions of use. This product contains a component that was manufactured with formaldehyde, which may release trace amounts of formaldehyde gas in the final product application.

Advice for The Rescuer

Do not enter fire area without proper protective equipment, including respiratory protection.

Special Note for Doctor

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: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

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

Special Hazards

Fire Hazard: Not considered flammable but may burn at high temperatures.

Explosion Hazard: Product is not explosive.

Reactivity in Case of Fire: Hazardous reactions will not occur under normal conditions.

Hazardous Decomposition Products in Case of Fire: Carbon oxides (CO, CO₂). Nitrogen oxides. Acrolein. Formaldehyde.

Fire Precautions and Protective Measures

Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

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

Specific Fire Fighting: Use water spray or fog for cooling exposed containers.

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

Prevention Measures for Secondary Accidents: Ventilate area. No open flames, no sparks, and no smoking. Eliminate ignition sources.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

For Non-Emergency Personnel

Protective equipment: Use appropriate personal protection equipment (PPE).

Emergency procedures: Evacuate unnecessary personnel.

For Emergency Responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area. 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.

Environmental Protection Measures

Environmental Precautions: Prevent entry to sewers and public waters.

Methods and Material Used for Collection, Disposal of Leak

Methods and Equipment for Containment and Cleaning up: Stop leak if possible to do so without risk. Do not allow to spread into the environment. Contact competent authority after a spill, and follow local/national regulations.

Precautionary Measures to Prevent the Occurrence of Secondary Disasters

Secondary Disaster Prevention Measures: Ventilate area. No open flames, no sparks, and no smoking.

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Eliminate ignition sources.

SECTION 7: HANDLING AND STORAGE

Handling

Technical Measures: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Use good housekeeping practices during storage, transfer and handling.

Local and General Ventilation: Ensure adequate air ventilation.

Precautions for Safe Handling: Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

Prevents Handling of Incompatible Substances or Mixtures: Keep away from: Strong acids, strong bases, strong oxidizers. Do not eat, drink or smoke during work.

Storage

Technical Measures: Comply with applicable regulations.

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.

Special Rules on Packaging: Store in a closed container.

Material Used in Packaging/containers: Store at room temperature.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Formaldehyde (50-00-0)		
ACGIH	ACGIH Ceiling (ppm)	0.3 ppm
ACGIH	ACGIH chemical category	dermal sensitizer Suspected Human Carcinogen
China	OEL chemical category (CN)	Sensitizer Carcinogenic to humans
China	OEL MAC (mg/m ³)	0.5 mg/m ³
China	Highly Toxic Goods - Maximum Allowable Concentrations (MACs)	0.5 mg/m ³
China	Catalogue of Occupational Hazard Factors	Category 3 - Chemicals, Category 6 - Hazard Factors of Occupational Dermatitis, Category 7 - Hazard Factors of Occupational Ophthalmopathy

Biological Limits

No data available

Monitoring Methods

Monitoring Methods: No data available

Engineering 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.

Personal Protective Equipment

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.

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Hand Protection: Wear protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Use good housekeeping practices during storage, transfer and handling.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance	: Blue paste
Physical State	: Liquid
Odour	: Odorless
pH Value	: No data available
Melting point/Freezing Point	: No data available
Boiling Point, Initial Boiling Point and Boiling Range	: No data available
Flash Point	: No data available
Autoignition Temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapour pressure	: No data available
Relative Vapour Density At 20 °C	: No data available
Solubility	: No data available
N-octanol/water Distribution Coefficient	: No data available
Decomposition Temperature	: No data available
Viscosity	: No data available
Explosive Limits (G/M ³)	: No data available
Explosive Limits (Vol %)	: No data available
Density	: 1.3 g/ml

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Hazardous Decomposition Products: Thermal decomposition generates: Carbon and nitrogen oxides. Acrolein. Formaldehyde.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity (Oral) - Description	: Not classified
Acute Toxicity (Dermal) - Description	: Not classified
Acute Toxicity (Inhalation) - Description	: Not classified
Skin Corrosion/Irritation - Description	: Not classified
Serious Eye Damage/Irritation - Description	: Not classified
Respiratory or Skin Sensitization - Description	: Not classified
Germ Cell Mutagenicity - Description	: Not classified
Carcinogenicity - Description	: Not classified
Reproductive Toxicity - Description	: Not classified
Specific Target Organ Toxicity (Single Exposure) - Description	: Not classified
Specific Target Organ Toxicity (Repeated Exposure) - Description	: Not classified
Aspiration - Description	: Not classified
Other Health Hazard	: No data available

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Information on Toxicological Effects Ingredient(s)

Polytetrafluoroethylene (9002-84-0)	
IARC group	3
Formaldehyde (50-00-0)	
LD50 Oral Rat	100 mg/kg
LD50 Dermal Rat	270 mg/kg
ATE (Gases)	700.000 ppmv/4h
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Acute Aquatic Toxicity - Description	: Not classified
Acute Chronic Toxicity - Description	: Not classified

Formaldehyde (50-00-0)	
LC50 Fish 1	22.6 - 25.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	2 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	1510 µg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	11.3 - 18 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Persistence and Degradability

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Persistence and Degradability	Not established.

Bioaccumulative Potential

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Bioaccumulative Potential	Not established.
Formaldehyde (50-00-0)	
Log Pow	0.35 (at 25 °C)

Mobility in Soil

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Ecology - Soil	Not established.

Other Adverse Effects

Ozone - Description	: Not classified
Other Information	: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Chemicals

Additional Information: Do not empty into drains; dispose of this material and its container in a safe way.

Disposal Matters

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Ecology – Waste Materials: Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

In Accordance with UNRTDG Not regulated for transport

In Accordance with IATA Not regulated for transport

In Accordance with IMDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

Asia/Pacific Regulations

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Priority List of Hazardous Chemical Wastes	No
Polytetrafluoroethylene (9002-84-0)	
Priority List of Hazardous Chemical Wastes	No

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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 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)	
Formaldehyde (50-00-0)	
Dangerous Goods List (GB 12268-2012)	GB12268-2012
List of dangerous chemicals (2015)	Listed
Major Hazard Installations for Dangerous Chemicals (GB 18218-2009)	Table 1 (5 T)
Integrated Wastewater Discharge Standards	Group 2 Pollutants (Table 4) - Class 3, Group 2 Pollutants (Table 4) - Class 2, Group 2 Pollutants (Table 4) - Class 1, Group 2 Pollutants (Table 2) - Class 3, Group 2 Pollutants (Table 2) - Class 2, Group 2 Pollutants (Table 2) - Class 1
Standards for Drinking Water Quality	Table 1 (Regular Indices and Limit Values)
Priority List of Hazardous Chemical Wastes	No
Major Hazard Installations for Dangerous Chemicals (GB 18218-2009) - Table 1	5 T (>90%)
Air Pollutants - Emission Limits	30 mg/m ³ (existing facilities)
Surface Water Sources for Centralized Drinking Water - Designated Limit Values	0.9 mg/l
State Or Local Regulations	Dangerous Goods List (GB 12268-2012) List of dangerous chemicals (2015)
Regulatory reference Listed on IARC (International Agency for Research on Cancer) 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 EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) 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 Japanese Poisonous and Deleterious Substances Control Law Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed as carcinogen on NTP (National Toxicology Program) Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313 Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on Turkish inventory of chemical	
International Agreements	
Polytetrafluoroethylene (9002-84-0)	
Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (Basel Convention) Hazardous Substances Containing in Waste (Act Cat.2 para (1) Item (I) (a), 3 Ministry Notification No.2 of 1993)	

SECTION 16: OTHER INFORMATION

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Other Information

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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.

SDS China GHS