

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Identifier

Product form: Mixture

Product Name: SWAK™

1.2. Intended Use of the Product

Recommended Uses and Restrictions: Anaerobic pipe thread sealant

1.3. 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

Supplier

[Distributor, add your contact information](#)

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
Skin sensitisation, Category 1
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
Hazardous to the aquatic environment — Chronic Hazard, Category 4

Environmental Hazards

2.2. Label elements

Hazard Pictograms (GHS-KR)



Signal Word (GHS-KR)

: Warning

Hazard Statements (GHS-KR)

: H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H413 - May cause long lasting harmful effects to aquatic life.
P261 - Avoid breathing vapors, mist, or spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
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.
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.
P333+P313 - If on skin and if skin irritation or rash 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.

Precautionary Statements (GHS-KR)

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

Other Hazards Which Do Not Result In Classification : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Mixture/Substance

Distinction of Substance or Mixture : Mixture

Substance Name	CAS-No.	Formula	Concentration
Polytetrafluoroethylene	9002-84-0	(C ₂ F ₄) _x	30 - 40%
Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(2-methyl-1-oxo-2-propenyl)oxy]-	41637-38-1	(C ₂ H ₄ O) _n (C ₂ H ₄ O) _n C ₂ H ₂ O ₄	30 - 40%
Nonanedioic acid, polymer with 1,2-propanediol	29408-67-1	(C ₉ H ₁₆ O ₄ .C ₃ H ₈ O ₂) _x	20 - 30%
Polyethylene glycol	25322-68-3	(C ₂ H ₄ O) _n H ₂ O	1 - 5%
Titanium dioxide	13463-67-7	O ₂ Ti	1 - 5%
Silica, amorphous, fumed, crystalline-free	112945-52-5	Unspecified	< 1%
Cumene hydroperoxide	80-15-9	C ₉ H ₁₂ O ₂	< 1%

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

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. 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: Causes skin irritation. Causes serious eye irritation. Skin sensitisation. May cause respiratory irritation.

Symptoms/Injuries After Inhalation: Sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing. 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. May cause an allergic skin reaction.

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.

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

Personal Protection (Emergency Response): Do not enter fire area without proper protective equipment, including respiratory protection

5.2. Specific Hazards Arising From the Chemical

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

Explosion Hazard: Product is not explosive.

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). Carbonyl fluoride. Carbon tetrafluoride. Fluorine compounds.

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

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

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 any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Prevention Measures for Ventilate area.

Secondary Accidents:

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Technical Measures: Comply with applicable regulations.

Additional Hazards When Processed: Contains substances that are combustible dusts. If dried and allowed to accumulate, 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.

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 vapors, mist, spray.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

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.

Material Used In Packaging/Containers: No data available

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

Titanium Dioxide (13463-67-7)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen

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Korea	ISHA TWA (mg/m ³)	10 mg/m ³
China	OEL STEL	16 mg/m ³ (calculated-total dust)
China	OEL TWA	8 mg/m ³ (total dust)
China	Catalogue of Occupational Hazard Factors	Category 1 - Dusts

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.

Personal Protective Equipment:

Gloves. Protective clothing. Protective goggles.



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	:	Grainy Off-White Paste With Mild Odor
Physical State	:	Liquid
Molecular Mass	:	No data available
Odour	:	Mild
Odor Threshold	:	No data available
pH	:	No data available
Melting Point	:	No data available
Boiling Point	:	No data available
Flash Point	:	> 230 °F (110 °C)
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/m³)	:	No data available
Explosive Limits (vol %)	:	No data available
Density	:	1.3 g/ml

SECTION 10: STABILITY AND REACTIVITY

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.

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 Sensitizer	Not classified.
Skin Sensitization	May cause an allergic skin reaction.
Germ Cell Mutagenicity	Not classified.
Carcinogenicity	Not classified. The titanium dioxide in this product is non-respirable, thus the typical carcinogenicity hazard associated with this substance is not applicable.
Reproductive Toxicity	Not classified.
Specific Target Organ Toxicity (Single Exposure)	May cause respiratory irritation.
Specific Target Organ Toxicity (Repeated Exposure)	Not classified. The titanium dioxide in this product is non-respirable, thus the typical lung damage hazard associated with this substance is not applicable.
Aspiration Hazard	Not classified.

11.2 Information on Toxicological Effects - Ingredient(s)

Polyethylene Glycol (25322-68-3)	
LD50 Oral Rat	22 g/kg
LD50 Dermal Rabbit	> 20 g/kg
Silica, Amorphous, Fumed, Crystalline-Free (112945-52-5)	
LD50 Oral Rat	3160 mg/kg
Cumene Hydroperoxide (80-15-9)	
LD50 Oral Rat	382 mg/kg
LD50 Dermal Rabbit	0.126 ml/kg
LC50 Inhalation Rat	1.4 mg/l/4h
LC50 Inhalation Rat	220 ppm/4h
Titanium Dioxide (13463-67-7)	
LD50 Oral Rat	> 10000 mg/kg
Polytetrafluoroethylene (9002-84-0)	
IARC Group	3
Silica, amorphous, fumed, crystalline-free (112945-52-5)	
IARC Group	3
Titanium dioxide (13463-67-7)	
IARC Group	2B
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity	: May cause long lasting harmful effects to aquatic life.
Fish Toxicity / Other Toxicity	: No data available
Other Information	: Avoid release to the environment.

Cumene Hydroperoxide (80-15-9)	
LC50 Fish 1	3.9 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and Degradability

Swak™	
Persistence And Degradability	Not established.

12.3. Bioaccumulative Potential

Swak™	
Bioaccumulative Potential	Not established.
Cumene Hydroperoxide (80-15-9)	

Bcf Fish 1

35.5

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****Polytetrafluoroethylene (9002-84-0)****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 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)

Polyethylene Glycol (25322-68-3)**Regulatory Reference**

Listed on the EU NLP (No Longer Polymers) inventory
 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 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 the TCSI (Taiwan Chemical Substance Inventory)

Silica, Amorphous, Fumed, Crystalline-Free (112945-52-5)

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 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 INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Cumene Hydroperoxide (80-15-9)
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 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 Pollutant Release and Transfer Register Law (PRTR Law)
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 the TCSI (Taiwan Chemical Substance Inventory)

Poly(Oxy-1,2-Ethanediyl), .Alpha.,.Alpha.'-[(1-Methylethylidene)Di-4,1-Phenylene]Bis[.Omega.-[(2-Methyl-1-Oxo-2-Propenyl)Oxy]- (41637-38-1)

ISHA	Name, Toxicity and Protective Measures of New Chemical
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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 Japanese ISHL (Industrial Safety and Health Law)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Titanium Dioxide (13463-67-7)

Hazardous Substances Subject to Working Environment Measurement	Applicable
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Hazardous Substances Subject to Control	Applicable
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ISHA	Hazardous Substances Subject to Control - Metal
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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 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

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Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

SECTION 16: OTHER INFORMATION

Revision Date	: 2016/04/05
Revision Number	: 2.0
Date of Issue	: 2019/11/20
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 of the Ministry of Employment and Labor (MOEL) of South Korea public notice No. 2016-19

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