Garlock

an EnPro Industries family of companies

SAFETY DATA SHEET

1. Identification

Product identifier Gylon® Style 3502

Other means of identification

Product code 35134

Recommended use Gasket Material

Recommended restrictions Maximum Service Temperature should not exceed 500°F

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Garlock Sealing Technologies, LLC

Address 1666 Division Street

Palmyra, NY 14522

United States

Telephone M-F 9:00AM-4:00PM 315-597-4811

FAX 315-597-3039

E-mail GSTSDS@garlock.com

Emergency phone number 315-597-4811

2. Hazard(s) identification

Physical hazardsNot classified.Health hazardsNot classified.Environmental hazardsNot classified.OSHA defined hazardsNot classified.

Label elements

Hazard symbol None.
Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements for Safety Data

Sheets do not apply to the product(s) described in this document. This product is excluded in the

regulation as an Article.

Heating PTFE to temperatures in excess of 500° F can evolve toxic fluorine compounds. Additional information concerning PTFE is available in the "Guide to the Safe Handling of Fluoropolymer Resins" published by the Fluoropolymers Division of the Society of the Plastics

Industry, Inc.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Polytetrafluoroethylene (PTFE)		9002-84-0	50 - < 60
Silica - Crystalline, Quartz		14808-60-7	40 - < 50
Spinels, Iron Titanium Brown		68187-02-0	< 1
Copper Chromite Black Spinel		68186-91-4	< 0.1

Material name: Gylon® Style 3502

Chemical nameCommon name and synonymsCAS number%Red Iron Oxide1309-37-1< 0.1</td>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation No specific intervention is indicated as the product is not likely to be hazardous by inhalation.

Consult a physician if necessary. If exposed to fumes from overheating or combustion, move to

fresh air. Consult physician if symptoms persist.

Skin contact The product is not likely to be hazardous by skin contact, but cleansing the skin after use is

Direct contact with eyes may cause temporary irritation.

advisable.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion No specific intervention is indicated, as product is not likely to be hazardous by ingestion. Consult

a physician if necessary.

Most important

symptoms/effects, acute and

delayed

Indication of immediate

medical attention and special treatment needed

Treat symptomatically.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

equipment/instructions

Hydrogen fluoride fumes emitted during a fire can react with water to form hydrofluoric acid. Wear

neoprene gloves when handling refuse from fire

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

None known.

Methods and materials for containment and cleaning up

None necessary.

Environmental precautions

None known.

7. Handling and storage

Precautions for safe handling

Avoid grinding, abrading or other mechanical actions that could release airborne silica. Dust generated from this material must be managed by wet wiping or vacuuming with HEPA filtration equipped vacuum cleaners. Do not dry sweep or blow dust with compressed air. Avoid breathing dust. Avoid contamination of cigarettes or tobacco with dust from this material.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form	
Red Iron Oxide (CAS 1309-37-1)	PEL	10 mg/m3	Fume.	
Silica - Crystalline, Quartz (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.	

Material name: Gylon® Style 3502 35134 Version #: 02 Revision date: 05-15-2017 Issue date: 04-20-2015 US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Red Iron Oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Silica - Crystalline, Quartz (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.
US. ACGIH Threshold Limit Value	s		
Components	Туре	Value	Form
Copper Chromite Black Spinel (CAS 68186-91-4)	TWA	1 mg/m3	Dust and mist.
. ,		0.2 mg/m3	Fume.
Red Iron Oxide (CAS 1309-37-1)	TWA	5 mg/m3	Respirable fraction.
Silica - Crystalline, Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
US. NIOSH: Pocket Guide to Cher	nical Hazards		
Components	Туре	Value	Form
Red Iron Oxide (CAS 1309-37-1)	TWA	5 mg/m3	Dust and fume.
Silica - Crystalline, Quartz (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica

should be monitored and controlled.

Appropriate engineering

controls

General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

product to prevent eye contact with particulate matter.

Skin protection

Hand protection When handling hot material, use heat resistant gloves. Glove selection must take into account any

solvents and other hazards present.

Other Not normally needed.

Exposure Limit.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene Always observe good personal hygiene measures, such as washing after handling the material

and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance

considerations

Physical state Solid.

Form Sheets or Gaskets

Color Fawn Odor None.

Odor threshold Not available.

pH Not Applicable

Melting point/freezing point 620.6 °F (327 °C)

Material name: Gylon® Style 3502

Initial boiling point and boiling

range

Not Applicable

Flash point Not Applicable Not Applicable **Evaporation rate**

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not Applicable

Flammability limit - lower

(%) temperature

Not Applicable

Flammability limit - upper

(%)

Not Applicable

Flammability limit - upper

(%) temperature

Not Applicable

Explosive limit - lower (%)

Not Applicable Not Applicable

Explosive limit - lower (%)

temperature

Explosive limit - upper (%) Explosive limit - upper (%) Not Applicable

temperature

Not Applicable

Vapor pressure

Not Applicable

Not Applicable Vapor density 2.16 g/cm3 Relative density

Solubility(ies)

Solubility (water) Not Soluble **Partition coefficient** Not Applicable

(n-octanol/water)

968 - 1040 °F (520 - 560 °C) **Auto-ignition temperature**

> 500 °F (> 260 °C) **Decomposition temperature Viscosity** Not Applicable

Other information

Explosive limit Not Applicable Flash point class Not Applicable

Specific gravity 2.16

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Keep away from heat, sparks and open flame. Conditions to avoid

Incompatible or can react with finely divided metal powders (e.g. aluminum and magnesium), Incompatible materials

molten alkali metals, and potent oxidizers like fluorine and related compounds like chlorine

trifluoride. Contact with incompatibles can cause fire or explosion.

Hazardous decomposition

products

Composition of by-products from the result of a fire or thermal decomposition will vary depending on the specific conditions. Hazardous gases/vapors possibly evolved include smoke, hydrogen fluoride, carbonyl fluoride, perfluorocarbon olefins and carbon monoxide. There may be others

unknown to us.

11. Toxicological information

Information on likely routes of exposure

Inhalation No adverse effects due to inhalation are expected. No adverse effects due to skin contact are expected. Skin contact Direct contact with eyes may cause temporary irritation. Eye contact

Ingestion Expected to be a low ingestion hazard.

Material name: Gylon® Style 3502

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

No effects due to exposure to the product are anticipated. If exposed to thermal decomposition products of the PTFE, temporary symptoms of polymer fume fever, a temporary flu-like illness with chills, fever, and sometimes cough, of approximately 24 hours duration may arise. There are some reports in the literature of persistent pulmonary effects in individuals, especially smokers, who have repeated episodes of polymer fume fever. Because of complicating factors, such as mixed exposures and smoking history, these findings are uncertain. Small amounts of carbonyl fluoride and hydrogen fluoride may also be evolved when PTFE is overheated or burned.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation. Direct contact with eyes may cause temporary irritation.

Serious eye damage/eye

irritation

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity

Copper Chromite Black Spinel (CAS 68186-91-4) 3 Not classifiable as to carcinogenicity to humans. Polytetrafluoroethylene (PTFE) (CAS 9002-84-0) 3 Not classifiable as to carcinogenicity to humans. Red Iron Oxide (CAS 1309-37-1) 3 Not classifiable as to carcinogenicity to humans.

Silica - Crystalline, Quartz (CAS 14808-60-7) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Silica - Crystalline, Quartz (CAS 14808-60-7) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Silica - Crystalline, Quartz (CAS 14808-60-7) Known To Be Human Carcinogen.

This product is not expected to cause reproductive or developmental effects. Reproductive toxicity

Specific target organ toxicity -

Not classified.

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure **Aspiration hazard**

Not an aspiration hazard.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the **Ecotoxicity**

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

No data is available on the degradability of this product. Persistence and degradability

No data available. Bioaccumulative potential Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

Material name: Gylon® Style 3502 35134 Version #: 02 Revision date: 05-15-2017 Issue date: 04-20-2015

13. Disposal considerations

Disposal instructions Not available.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations.

Contaminated packaging Not available.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Not applicable. Transport in bulk according to

Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard

Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

TSCA Chemical Action Plans, Chemicals of Concern

Polytetrafluoroethylene (PTFE) (CAS 9002-84-0) Long-Chain Perfluorinated Chemicals (PFCs) Action Plan

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Silica - Crystalline, Quartz (CAS 14808-60-7) Cancer

lung effects

immune system effects

kidney effects

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate Hazard - No **Hazard categories**

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous Nο

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Copper Chromite Black Spinel (CAS 68186-91-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

Material name: Gylon® Style 3502 SDS US

US state regulations

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Inventory name

Silica - Crystalline, Quartz (CAS 14808-60-7) Listed: October 1, 1988

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

Silica - Crystalline, Quartz (CAS 14808-60-7)

International Inventories

Philippines

Country(s) or region

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

(PICCS)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

Yes

Yes

On inventory (yes/no)*

Philippine Inventory of Chemicals and Chemical Substances

16. Other information, including date of preparation or last revision

 Issue date
 04-20-2015

 Revision date
 05-15-2017

Version # 02

Further information This SDS supersedes the SDS dated: April 20, 2015

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge,

information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

materials or in any process, unless specified in the text.

Revision information Identification: Recommended restrictions

Composition / Information on Ingredients: Ingredients

Material name: Gylon® Style 3502 sps us

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

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).