# **#PLUSCO**

# SAFETY DATA SHEET

## 1. Identification

Product identifier 2111 - PTFE, Lead And Zinc Free Thread Compound

Other means of identification

SDS number 2111.001
Product code PLU2111

Recommended use Thread Compound

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential

presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required

under applicable regulations.

## Manufacturer/Importer/Supplier/Distributor information

Company name PLUSCO, Inc.

Address 14518 Henry Road
Houston, TX 77060

Telephone713-880-0316Websitewww.plus-co.comEmergency phone number1-800-275-1875

# 2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Carcinogenicity Category 1A

Specific target organ toxicity, repeated Category 1

exposure

Environmental hazards Hazardous to the aquatic environment, acute Category 2

hazard

Hazardous to the aquatic environment, Category 2

long-term hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement May cause cancer. Causes damage to organs through prolonged or repeated exposure. Toxic to

aquatic life with long lasting effects.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after

handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

**Response** If exposed or concerned: Get medical advice/attention.

Storage Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

931974 Version #: 01 Revision date: - Issue date: 06-January-2016

## 3. Composition/information on ingredients

#### **Mixtures**

Chemical name	CAS number	%
OIL MIST (MINERAL)	Not available	35 - < 45
Graphite	7782-42-5	15 - < 20
Barium sulphate	7727-43-7	10 - < 15
Quartz	14808-60-7	3 - < 5
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	1 - < 5
Copper	7440-50-8	< 1
Cristobalite	14464-46-1	< 1
Tridymite [silca, Crystalline]	15468-32-3	< 1

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

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

Prolonged exposure may cause chronic effects.

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

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special

treatment needed
General information

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s)

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

involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from

the chemical
Special protective equipment

Special protective equipment and precautions for firefighters

During fire, gases hazardous to health may be formed.

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

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

Her water annual containing

Fire fighting equipment/instructions

Use water spray to cool unopened containers.

**Specific methods**Use 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

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Prevent product from entering drains. Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

# 7. Handling and storage

# Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

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

Form

## 8. Exposure controls/personal protection

## Occupational exposure limits

Componente

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

T. ....

Components	Туре	Value	Form
Barium sulphate (CAS 7727-43-7)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Copper (CAS 7440-50-8)	PEL	1 mg/m3	Dust and mist.
		0.1 mg/m3	Fume.
Distillates (petroleum), nydrotreated heavy naphthenic (CAS	PEL	5 mg/m3	Mist.
64742-52-5)		0000 / 0	
		2000 mg/m3	
2 1:: (0.4.0.7700.40.5)	DEI	500 ppm	D : 11 ( ''
Graphite (CAS 7782-42-5)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
OIL MIST (MINERAL) (CAS Not available)	PEL	5 mg/m3	Mist.
US. OSHA Table Z-3 (29 CFR 1910.1	000)		
Components	Туре	Value	Form
Cristobalite (CAS 14464-46-1)	TWA	0.15 mg/m3	Total dust.
		0.05 mg/m3	Respirable.
		1.2 mppcf	Respirable.
Graphite (CAS 7782-42-5)	TWA	15 mppcf	
Quartz (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 mppcf	Respirable.
Tridymite [silca, Crystalline] (CAS 15468-32-3)	TWA	0.15 mg/m3	Total dust.
(,		0.05 mg/m3	Respirable.
		1.2 mppcf	Respirable.
JS. ACGIH Threshold Limit Values			·
Components	Туре	Value	Form
Barium sulphate (CAS 7727-43-7)	TWA	5 mg/m3	Inhalable fraction.
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.
		0.2 mg/m3	Fume.
Cristobalite (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable fraction.
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Inhalable fraction.
Graphite (CAS 7782-42-5)	TWA	2 mg/m3	Respirable fraction.
OIL MIST (MINERAL) (CAS Not available)	TWA	5 mg/m3	Inhalable fraction.
Quartz (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Components	Туре	Value	Form
Barium sulphate (CAS 7727-43-7)	TWA	5 mg/m3	Respirable.
		10 mg/m3	Total
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.
Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)	Ceiling	1800 mg/m3	
·	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Graphite (CAS 7782-42-5)	TWA	2.5 mg/m3	Respirable.
OIL MIST (MINERAL) (CAS Not available)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
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

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

**Eye/face protection** If contact is likely, safety glasses with side shields are recommended.

Skin protection

**Hand protection** Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Skin protection

Other Use of an impervious apron is recommended.

**Respiratory protection** Use a particulate filter respirator for particulate concentrations exceeding the Occupational

Exposure Limit.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. 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 Black semi-solid. Viscous.

Physical stateSolid.FormSemisolid.ColorBlack.

Odor Hydrocarbon.
Odor threshold Not available.
pH Not available.
Melting point/freezing point Not available.
Initial boiling point and boiling Not available.

range

Flash point 400.0 °F (204.4 °C) Cleveland Open Cup

Evaporation rate Not available.
Flammability (solid, gas) Not available.
Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

(%)

Not available.

Explosive limit - lower (%)

ower (%) Not available.

Ipper (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure Not available.

Vapor density Not available.

Relative density 1.15 (77 °F (25 °C))

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

**Explosive properties** Not explosive. **Oxidizing properties** Not oxidizing.

# 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.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Aluminum. Phosphorus. Chlorine.

Hazardous decomposition

products

Carbon dioxide (CO2). Carbon monoxide (CO). Carbonyl fluoride. Hydrogen fluoride.

Perfluoroisobutylene (PFIB). Sulfur oxides (SOx.).

# 11. Toxicological information

## Information on likely routes of exposure

**Inhalation** Prolonged inhalation may be harmful.

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

**Ingestion** Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

Direct contact with eyes may cause temporary irritation.

## Information on toxicological effects

**Acute toxicity** 

Components Species Test Results

Barium sulphate (CAS 7727-43-7)

**Acute** Oral

LD50 Rat 307 g/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye Direct contact with eyes may cause temporary irritation.

irritation

Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

2111 - PTFE, Lead And Zinc Free Thread Compound

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

## 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. May cause cancer. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

## IARC Monographs. Overall Evaluation of Carcinogenicity

Cristobalite (CAS 14464-46-1) 1 Carcinogenic to humans. 3 Not classifiable as to carcinogenicity to humans.

Distillates (petroleum), hydrotreated heavy naphthenic

(CAS 64742-52-5)

Quartz (CAS 14808-60-7) 1 Carcinogenic to humans. Tridymite [silca, Crystalline] (CAS 15468-32-3) 1 Carcinogenic to humans.

**NTP Report on Carcinogens** 

Cristobalite (CAS 14464-46-1) Known To Be Human Carcinogen.

Reasonably Anticipated to be a Human Carcinogen.

OIL MIST (MINERAL) (CAS Not available) Known To Be Human Carcinogen. Quartz (CAS 14808-60-7) Known To Be Human Carcinogen. Tridymite [silca, Crystalline] (CAS 15468-32-3) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

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

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** Not an aspiration hazard.

**Chronic effects** Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be

harmful. Prolonged exposure may cause chronic effects.

# 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

Components		Species	Test Results	
Barium sulphate (CAS	7727-43-7)			
Aquatic				
Crustacea	EC50	Tubificid worm (Tubifex tubifex)	28.61 - 38.03 mg/l, 48 hours	
Copper (CAS 7440-50	)-8)			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	0.0318 mg/l, 48 hours	
Fish	LC50	Chinook salmon (Oncorhynchus tshawytscha)	0.02 mg/l, 96 hours	

<sup>\*</sup> Estimates for product may be based on additional component data not shown.

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

Bioaccumulative potential No data available. 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.

SDS US

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Dispose in accordance with all applicable regulations. Local disposal regulations

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

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

## 14. Transport information

DOT

**UN number** UN3077

**UN proper shipping name** Environmentally hazardous substances, solid, n.o.s. (Copper RQ = 657895 LBS)

Transport hazard class(es)

Class 9 Subsidiary risk 9 Label(s) Ш Packing group

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions 8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33

9

155 Packaging exceptions 213 Packaging non bulk 240 Packaging bulk

IATA

UN3077 **UN** number

**UN proper shipping name** Environmentally hazardous substance, solid, n.o.s. (Copper)

Transport hazard class(es) **Class** 

Subsidiary risk Ш Packing group **Environmental hazards** Yes **ERG Code** 9L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

**IMDG** 

**UN** number UN3077

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper) **UN proper shipping name** 

Transport hazard class(es)

Class 9 Subsidiary risk Packing group Ш **Environmental hazards** 

Yes Marine pollutant F-A, S-F **EmS** 

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to

Not applicable. Annex II of MARPOL 73/78 and

the IBC Code

15. Regulatory information

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication **US** federal regulations

Standard, 29 CFR 1910.1200.

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

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

## **CERCLA Hazardous Substance List (40 CFR 302.4)**

Barium sulphate (CAS 7727-43-7) LISTED Copper (CAS 7440-50-8) LISTED

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

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

## SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

## SARA 313 (TRI reporting)

Not regulated.

#### Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

## **US** state regulations

## **US. Massachusetts RTK - Substance List**

Barium sulphate (CAS 7727-43-7)

Copper (CAS 7440-50-8) Cristobalite (CAS 14464-46-1)

Distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)

Graphite (CAS 7782-42-5)

OIL MIST (MINERAL) (CAS Not available)

Quartz (CAS 14808-60-7)

Tridymite [silca, Crystalline] (CAS 15468-32-3)

# US. New Jersey Worker and Community Right-to-Know Act

Barium sulphate (CAS 7727-43-7)

Copper (CAS 7440-50-8)

Cristobalite (CAS 14464-46-1)

Graphite (CAS 7782-42-5)

OIL MIST (MINERAL) (CAS Not available)

Quartz (CAS 14808-60-7)

Tridymite [silca, Crystalline] (CAS 15468-32-3)

## US. Pennsylvania Worker and Community Right-to-Know Law

Barium sulphate (CAS 7727-43-7)

Copper (CAS 7440-50-8)

Cristobalite (CAS 14464-46-1)

Graphite (CAS 7782-42-5)

OIL MIST (MINERAL) (CAS Not available)

Quartz (CAS 14808-60-7)

Tridymite [silca, Crystalline] (CAS 15468-32-3)

## **US. Rhode Island RTK**

Copper (CAS 7440-50-8)

## **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer.

## US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Quartz (CAS 14808-60-7)

Tridymite [silca, Crystalline] (CAS 15468-32-3)

#### International Inventories

Country(s) or regionInventory nameOn inventory (yes/no)\*AustraliaAustralian Inventory of Chemical Substances (AICS)No

2111 - PTFE, Lead And Zinc Free Thread Compound

On inventory (yes/no)\* Country(s) or region Inventory name Canada Domestic Substances List (DSL) Canada Non-Domestic Substances List (NDSL) No China Inventory of Existing Chemical Substances in China (IECSC) No Europe European Inventory of Existing Commercial Chemical No Substances (EINECS) Europe European List of Notified Chemical Substances (ELINCS) No Inventory of Existing and New Chemical Substances (ENCS) Japan No Korea Existing Chemicals List (ECL) No New Zealand New Zealand Inventory No **Philippines** Philippine Inventory of Chemicals and Chemical Substances No

(PICCS)

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

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

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

**Issue date** 06-January-2016

Revision date - 01

**HMIS® ratings** Health: 2\*

Flammability: 1 Physical hazard: 0

NFPA ratings



Disclaimer

PLUSCO, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

No

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).