

HS3231 Pro-Eco Sil Metallic Copper Roof Coating

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union REACH Regulations

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CHEMICAL FAMILY NAME: U.N. NUMBER: U.N. DANGEROUS GOODS CLASS: SUPPLIER/MANUFACTURER'S NAME: ADDRESS: EMERGENCY PHONE:

BUSINESS PHONE: WEB SITE: <u>DATE OF CURRENT REVISION</u>: DATE OF LAST REVISION: HS3231 Pro-Eco Sil Metallic Copper Roof Coating Mixture UN1993 Flammable Liquid, n.o.s. See Section 14 for details Progressive Materials, LLC 540 Central Court, New Albany, IN 47150 USA TOLL-FREE in USA/Canada - Chemtrec 1-800-424-9300 National Poison Control Center (U.S.) 1-800-222-1222 812-944-7803 (Product Information) www.pmsilicone.com October 03, 2017 April 18, 2017

SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Product Description: This product is a viscous liquid with a metallic copper appearance and a slight odor.

Health Hazards: Exposure to the product may cause skin and eye irritation. Prolonged exposure may cause skin sensitization. Ingestion is not a normal route of exposure under normal product use. If swallowed, product may cause gastrointestinal irritation. This product contains an ingredient that is suspected of reproductive harm.

Flammability Hazards: This product is a combustible liquid as defined by OSHA with a flash point of >120°F **Reactivity Hazards:** None known.

Environmental Hazards: The environmental effects of this product have not been investigated; however it is expected to cause adverse effects in the environment.

Emergency Considerations: Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

US DOT SYMBOLS

See Section 14 for Details

GHS Hazard Symbols



Signal Word: Warning!

GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 AND the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS:

Liquid Silicone Polymer is non-hazardous and is not listed in ESIS

EC# 209-136-7 Annex VI Index# 014-018-00-1

EC# 245-366-4 This substance is not classified in the Annex VI

EC# 231-072-3 Annex VI Index# 013-001-00-6

EC# 601-216-3 This substance is not classified in the Annex VI

EC# 601-648-2 This substance is not classified in the Annex VI

EC# 215-168-2 This substance is not classified in the Annex VI

Component(s) Contributing to Classification(s)

Octamethylcyclotetrasiloxane, 2-Butanone, O, O', O''-(Methylsilylidyne)Trioxime, Silica, Amorphous, fumed, crystal-free,





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GHS Hazard Classification(s):

Skin Irritation Category 2 Eye Irritation Category 2A Skin Sensitization Category 1 Reproductive Toxicity Category 2 Chronic Aquatic Toxicity Category 3

Hazard Statement(s):

H315: Causes skin irritation

H319: Causes serious eye irritation

H317: May cause and allergic skin reaction

H361: Suspected of damaging fertility or the unborn child

H412: Harmful to aquatic life with long lasting effects

Prevention Statement(s):

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

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/eye protection/face protection.

Response Statement(s):

P308+P313: IF exposed or concerned: Get medical advice/attention.

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

P321: Specific treatment (See Section 4 of this SDS).

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Storage Statement(s):

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

Disposal Statement(s):

P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

HEALTH HAZARDS OR RISKS FROM EXPOSURE:

This product does not meet the criteria for PBT or vPvB in accordance with Annex XIII

ACUTE: This material may cause irritation to skin, eye, and respiratory system. May cause skin sensitization. Ingestion of this product may cause gastrointestinal irritation. This product contains an ingredient(s) that are suspected of causing reproductive harm.

CHRONIC: Prolonged or repeated skin contact may cause skin reactions.

TARGET ORGANS: ACUTE: Eye, Skin

CHRONIC: Skin



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SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS:	CAS #	EINECS #	ICSC #	WT %	HAZARD CLASSIFICATION
Liquid Silicone Polymer	*Trade Secret	Not Listed in ESIS	Not Listed	65 – 80%	NOT CLASSIFIED
Octamethylcyclotetrasiloxane	556-67-2	209-136-7	0310	5 – 15%	REPR. CAT 2, AQUATIC CHRONIC CAT 2
2-Butanone,O,O', O"- (Methylsilylidyne)Trioxime	22984-54-9	245-366-4	Not Listed	5 – 15%	SKIN IRRIT CAT 2, EYE IRRIT. CAT 2A, SKIN SENS CAT 1
Silica, Amorphous, fumed, crystal-free	112945-52-5	601-216-3	Not Listed	1 – 5%	SKIN IRRIT CAT 2, EYE IRRIT. CAT 2A, STOT SE CAT 3 (RESP IRRIT)
Mica	12001-26-2	601-648-2	Not Listed	1 – 5%	NOT CLASSIFIED
Iron Oxide	1309-37-1	215-168-2	Not Listed	1 – 5%	NOT CLASSIFIED
Balance of other ingredients are carcinogens, reproductive toxins,			in concentration	or 0.1% for	

* Ingredients are Company Trade Secret - Business Confidential. Progressive Materials LLC is withholding the specific chemical information under provision of the OSHA Hazard Communication Rule Trade Secrets (1910.1200(i)(1)). The specific chemical information will be made available to health professionals in accordance with 29 CFR 1910.1200 (i)(1) (2) (3) (4).

SECTION 4 - FIRST-AID MEASURES

- **EYE CONTACT:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation develops.
- **SKIN CONTACT:** Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder contaminated clothing before re-use.
- **INHALATION:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention if breathing dificulty continues.
- **INGESTION:** If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or MSDS with the victim to the health professional.
- **MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Pre-existing skin, or eye problems may be aggravated by exposure to this product.

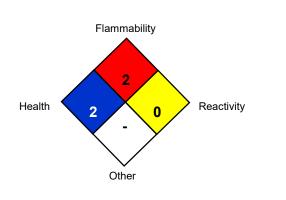
RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and reduce over-exposure.

SECTION 5 - FIRE-FIGHTING MEASURES			
FLAMMABLE LIMITS (in air by volume, %):	Lower Not Established Upper Not Established (UEL):		
FIRE EXTINGUISHING MATERIALS:	Carbon dioxide, foam, dry chemical, halon, water spray, sand, limestone powder.		
UNUSUAL FIRE AND EXPLOSION HAZARDS:	This material has been tested to ASTM D-4206 Standard and found not to sustain combustion		
Explosion Sensitivity to Mechanical Impact: Explosion Sensitivity to Static Discharge: SPECIAL FIRE-FIGHTING PROCEDURES:	Not Sensitive. Not Sensitive Incipient fire responders should wear eye protection. Structura firefighters must wear Self-Contained Breathing Apparatus and ful protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. I possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.		

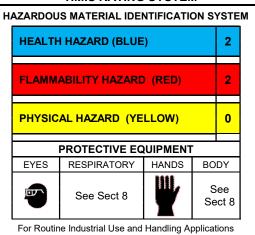




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NFPA RATING SYSTEM



Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

SECTION 6 - ACCIDENTAL RELEASE MEASURES

<u>SPILL AND LEAK RESPONSE</u>: Personnel should be trained for spill response operations.

SPILLS: Contain spill if safe to do so. Prevent entry into drains, sewers, and other waterways. Soak up with a noncombustible absorbent material and place in an appropriate container for disposal. Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

SECTION 7 - HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

STORAGE AND HANDLING PRACTICES: Keep container tightly closed and in a dry and cool place.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

EXPOSURE LIMITS/GUIDELINES:

Chemical Name	CAS#	ACGIH TWA	OSHA TWA	WEEL
Liquid Silicone Polymer	Non-Hazardous	Not Listed	Not Listed	Not Listed
Octamethylcyclotetrasiloxane	556-67-2	Not Listed	Not Listed	Not Listed
2-Butanone,O,O', O"- (Methylsilylidyne)Trioxime	22984-54-9	Not Listed	Not Listed	Not Listed
Silica, Amorphous, fumed, crystal- free	112945-52-5	Not Listed	Not Listed	Not Listed
Mica	12001-26-2	3 mg/m³	20 mppcf	Not Listed
Iron Oxide	1309-37-1	5 mg/m³	10 mg/m ³	Not Listed

Currently, International exposure limits are not established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above. Use local exhaust ventilation to control airborne vapor. Ensure eyewash/safety shower stations are available near areas where this product is used.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.



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RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards.

HAND PROTECTION: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE: APPEARANCE & ODOR:	Liquid Viscous liquid with a metallic copper appearance and a slight Odor.
ODOR THRESHOLD (PPM):	Not Available
	>120°F (This product has been tested to the ASTM D-4206
FLASH POINT:	Standard and determined that it does not sustain combustion)
AUTOIGNITION TEMPERATURE:	Not Established
VAPOR PRESSURE (mmHg):	Not Available
VAPOR DENSITY:	Not Available
EVAPORATION RATE (nBuAc = 1):	Not Available
BOILING POINT (C°):	Not Available
FREEZING POINT (C°):	Not Available
pH:	Not Available
SPECIFIC GRAVITY 20°C: (WATER =1)	Not Available
SOLUBILITY IN WATER (%)	Not Available
EXPLOSIVE PROPERTIES:	Not Available
OXIDISING PROPERTIES:	Not Available

SECTION 10 - STABILITY and REACTIVITY

STABILITY: Product is stable

DECOMPOSITION PRODUCTS: When heated to decomposition this product produces noxious gases such as CO, CO₂, and others.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: None known

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Heat and sources of ignition.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICITY DATA: Toxicity data is available for this product:CAS# 13463-67-7 LD50 Acute Oral>10000 mg/kgCAS# 112945-52-5 LD50 Acute Oral3160 mg/kgCAS# 556-67-2 LD50 Inhalation>12.7 mg/kg/4HrCAS# 556-67-2 LD50 Acute Oral1540 mg/kgCAS# 556-67-2 LD50 Acute Oral2400 mg/kg

Rat Rat Rat Rat Rat

Acute toxicity	Based on available data, the classification criteria are not met
Skin corrosion / irritation	Skin Irritation Category 2
Serious eye damage / irritation	Eye Irritation Category 2A
Respiratory or skin sensitization	Skin Sensitization Category 1
Germ cell mutagenicity	Based on available data, the classification criteria are not met





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Carcinogenicity	Based on available data, the classification criteria are not met
Reproductive toxicity	Reproductive Category 2
STOT-single exposure	Specific Target Organ Toxicity – Single Exposure (Respiratory Irritation)
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met

SUSPECTED CANCER AGENT: The ingredients within this product are not found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC and therefore are not considered to be, or suspected to be a cancer-causing agent by these agencies.

IRRITANCY OF PRODUCT: Contact with this product can be irritating to exposed skin, eyes, and respiratory system.

SENSITIZATION OF PRODUCT: This product is considered a skin sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: Octamethylcyclotetrasiloxane CAS# 556-67-2 is listed by the European Chemical Commission as a reproductive hazard causing harmful effects to fertility or the unborn child.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE: None known

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: None known

ASPIRATION HAZARD: None

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

TOXICITY: No specific data is currently available on this product's effects on aquatic life, however release of this product may have long term effects on the aquatic environment.

Specific Component Data:

Octamethylcyclotetrasiloxane (556-67-2)

Test & Species Conditions

96 Hr LC50 Brachydanio rerio >500 mg/L

96 Hr LC50 Lepomis macrochirus >1000 mg/L

24 Hr EC50 Daphnia magna 25.2 mg/L

PERSISTENCE AND DEGRADABILITY: No specific data available on this product.

BIOACCUMULATIVE POTENTIAL: No specific data available on this product.

MOBILITY IN SOIL: No specific data available on this product.

RESULTS OF PBT AND vPvB ASSESMENT: No specific data available on this product.

OTHER ADVERSE EFFECTS: No specific data available on this product.

WATER ENDANGERMENT CLASS: Not believed to be water endangering in accordance with EU Guideline 91/155-EWG. At present there are no ecotoxicological assessments for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

RCRA WASTE CODE: None listed

EU WASTE CODE: Not Listed

SECTION 14 - TRANSPORTATION INFORMATION

US DOT; IATA; IMO; ADR:

THIS PRODUCT IS CLASSIFIED AS DANGEROUS GOODS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

This product has been tested to the ASTM D-4206 Standard and determined that it does not sustain combustion. As result it is exempt from regulations when shipped ground or rail within the U.S.A.

PROPER SHIPPING NAME: Non-Regulated when shipped ground or rail with U.S.A.

HAZARD CLASS NUMBER and DESCRIPTION: None

UN IDENTIFICATION NUMBER: None

PACKING GROUP: None

DOT LABEL(S) REQUIRED: None

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2016): None

MARINE POLLUTANT: This product's ingredients that are not classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101, Appendix B)



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Fire: No

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

This product is classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):

PROPER SHIPPING NAME: Flammable Liquid, n.o.s.

HAZARD CLASS NUMBER and DESCRIPTION: Class 3 Flammable

UN IDENTIFICATION NUMBER: UN1993

PACKING GROUP: PGIII

DOT LABEL(S) REQUIRED: Flammable class 3

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION:

This product is classified as Dangerous Goods by the International Maritime Organization.

Chronic

Health:

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR):

This product is classified by the United Nations Economic Commission for Europe to be dangerous goods. Harmonized Tariff Code Not Listed

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATIONS

SARA REPORTING REQUIREMENTS: This product is not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act., as follows: None

TSCA: All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.

SARA 311/312:

Acute Health: Yes

Yes

Reactivity: No

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain chemicals on the Prop 65 lists.

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: All of the components of this product are on the DSL Inventory CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Classified per WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

EU LABELING AND CLASSIFICATION:

Classification of the mixture according to Regulation (EC) No1272/2008. See section 2 for details.

AUSTRALIAN INFORMATION FOR PRODUCT:

AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS: All components of this product are listed or exempt from listing on the AICS.

STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS: Not applicable.

JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.



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Listed

INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows: Asia-Pac: Listed or exempt from listing

Australian Inventory of Chemical Substances (AICS):

Korean Existing Chemicals List (ECL):

Japanese Existing National Inventory of Chemical Substances (ENCS):

Philippines Inventory if Chemicals and Chemical Substances (PICCS):

Swiss Giftliste List of Toxic Substances:

U.S. TSCA:

SECTION 16 - OTHER INFORMATION

PREPARED BY: Chris Eigbrett

MSDS to GHS Compliance www.msdstoghs.com

Listed or exempt from listing

Disclaimer: The information and recommendations in this document are accurate to the best of our knowledge. User must conduct their own tests to determine the suitability of these products for their particular purposes. Because of numerous factors affecting results, Progressive Materials, LLC MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR PURPOSE, other than the material conforms to our applicable current specifications. Progressive Materials, LLC assumes no legal responsibility for use or reliance on the information contained in this Material Safety Data Sheet.

END OF SDS