



MATERIAL SAFETY DATA SHEET

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Performance Pigments & Colors
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CHEMTREC (outside U.S.): 1-703-527-3887
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: PS 279 497 SanitIP red BULK **Date of Preparation:** 12/12/2011
Chemical Family: Inorganic Pigment
CAS-No.: Mixture
Product Code: 1177120

2. HAZARDS IDENTIFICATION

Emergency Overview

Warning

May cause respiratory tract, eye and skin irritation. Avoid dust formation. May cause physical irritation. May be harmful by inhalation. Cancer hazard (Cadmium compounds).

		HMIS	NFPA 704
Color:	Red	2	2
Physical state:	Powder	0	0
Odor:	Odorless	0	0
		E	

Potential Health Effects

Principle routes of exposure:

Inhalation, ingestion, skin and eye contact.

Eye contact:

May cause slight irritation.

Skin contact:

Prolonged skin contact may cause skin irritation and/or dermatitis.

Inhalation:

May cause irritation of respiratory tract. May be harmful by inhalation. Metal fumes from firing may cause lung inflammation and injury in terms of hours with symptoms of chest pains, chills, cough, headache, and diarrhea. Symptoms from exposure may not develop quickly and may not cause immediate effects. The effects of overexposure to cadmium may include decreased stamina, fatigue, sleep disturbance, headaches, aching bones and muscles, constipation, abdominal pains and decreased appetite. Existing lung or pulmonary conditions may be aggravated by exposure.

Ingestion:

May irritate digestive tract. Symptoms from exposure may not develop quickly and may not cause immediate effects.

Chronic toxicity:

No known effects under normal conditions of use. Excessive inhalation of dust may cause chemical pneumonitis, cyanosis, and pulmonary edema. Cadmium is a cumulative poison and can build up in the body over time to toxic levels. Cadmium causes lung damage and kidney disfunction and may cause lung or prostate cancer.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Zirconium Silicate	14940-68-2	95 - 99%
Cadmium sulfoselenide red	58339-34-7	1 - 5%

This product contains trace quantities of naturally occurring radioactive uranium, thorium and radium (<0.02% total). Overexposure by inhalation to respirable dusts containing uranium, thorium and radium may cause cancer, however, observance of the OSHA limit for respirable dusts of 5 mg/m³ will ensure the use of this product to be well below the regulatory limits established for these components.

4. FIRST AID MEASURES

Eye contact: Rinse immediately with plenty of water, also under the eyelids. Get medical attention if irritation develops.

Skin contact: Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

Ingestion: Drink plenty of water. Do not induce vomiting. Consult a physician if necessary.

Notes to physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point (°C): Non combustible

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

Hazardous decomposition products: Metal fumes. CdO.

Special protective equipment for firefighters: As in any fire, wear self-contained breathing apparatus (pressure-demand, NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid dust formation. Evacuate area of all unnecessary personnel. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Wear personal protective equipment. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly. Dispose of promptly.

7. HANDLING AND STORAGE

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation. Avoid contact with skin, eyes and clothing. Wash hands thoroughly before eating, drinking or smoking. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at places where dust is formed. Use only in well-ventilated areas.

Storage: Keep container tightly closed in a dry and well-ventilated place. Store in original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits
Minimize exposure in accordance with good hygiene practice.

Components	OSHA	ACGIH
Zirconium Silicate	5 mg/m ³ TWA Zr	10 mg/m ³ STEL Zr 5 mg/m ³ TWA Zr
Cadmium sulfoselenide red	0.2 mg/m ³ TWA Se	0.01 mg/m ³ TWA Cd 0.002 mg/m ³ TWA Cd respirable fraction 0.2 mg/m ³ TWA Se

Engineering measures:	Provide appropriate exhaust ventilation at machinery and at places where dust or fumes can be generated. Ensure adequate ventilation, especially in confined areas.
Eye protection:	Safety glasses with side-shields.
Skin and body protection:	Lightweight protective clothing.
Hand protection:	Impervious gloves.
Respiratory protection:	Use NIOSH approved respirator when ventilation is inadequate. NIOSH-approved respirators should be worn where engineering controls and work practices do not reduce exposure to or below the PEL. In case of insufficient ventilation wear suitable respiratory equipment . Seek professional advice prior to respirator selection and use.
Hygiene measures:	Wash hands before breaks and at the end of workday. Contaminated work clothing should not be allowed out of the workplace. Ensure that eyewash stations and safety showers are proximal to the work-station location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	Red	Physical state:	Powder
Odor:	Odorless	Molecular weight:	No data available
Boiling point/range (°C):	No data available	pH:	No data available
Melting point/range (°C):	No data available	Specific gravity (Water =1):	No data available
Vapor density:	Non-volatile	Vapor pressure :	No data available
Evaporation Rate (Water = 1)	Non-volatile	Water solubility:	Insoluble
VOC content (%)	0		

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Polymerization	Will not occur.
Hazardous decomposition products:	None under normal use.
Materials to avoid:	None known.
Conditions to avoid	None known.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Information given is based on data on the components and the toxicology of similar products
Carcinogenic Effects:	Cadmium and cadmium compounds (as respirable dust/aerosols) have proven to be carcinogenic.
Target Organ Effects:	Cadmium compound: Liver, Kidney.

Component information, if any, is listed below

Cadmium sulfoselenide red

OSHA - Select Carcinogens:	Present
NTP:	Known Human Carcinogen
IARC - Group 1:	Listed

12. ECOLOGICAL INFORMATION

Aquatic toxicity: No data is available on the product itself. Information given is based on data on the components and the ecotoxicology of similar products.

Persistence and degradability: Not determined

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products: Waste must be disposed of in accordance with federal, state and local environmental control regulations. Where possible recycling is preferred to disposal or incineration.

14. TRANSPORT INFORMATION

DOT (U.S.)

Proper shipping name: Not regulated.

TDG (Canada)

Proper shipping name: Not regulated.

15. REGULATORY INFORMATION

U.S. Regulations:

TSCA: Not subject to TSCA 12(b) Export Notification

SARA 313:

Components	U.S. - CERCLA/SARA - Section 313 - Emission Reporting
Cadmium compounds (5 - 10%)	0.1 % de minimis concentration
Selenium compounds (1 - 5%)	1.0 % de minimis concentration

State Regulations

This product or its ingredients have been evaluated for New Jersey, Pennsylvania, and California Prop 65 supplier notification requirements. Substances that are subject to notification requirements, if any, are listed below.

Components	PARTK:
Cadmium compounds	Listed (PARTK)
Selenium compounds	Listed (PARTK)

Components	NJRTK:
Cadmium compounds	Listed (NJRTK)
Selenium compounds	Listed (NJRTK)

Components	State Regulation - CA Prop65
Zirconium Silicate	Radionuclides
Cadmium compounds	Carcinogen Developmental Toxicity Reproductive Male

Canadian WHMIS

WHMIS hazard class: D2A Very toxic materials

Canadian Ingredient Disclosure List (IDL):

Components	Canada - WHMIS Ingredient Disclosure:
Zirconium Silicate	1

Cadmium compounds	0.1
Selenium compounds	0.1

International Inventories

TSCA 8(b):	Listed or exempt.
Canadian DSL/NDSL list	All ingredient(s) are listed on the DSL or NDSL
EC-No.	Listed or exempt.
Philippines (PICCS):	Listed.
Japan (ENCS):	Listed or exempt.
Korea (KECL):	Listed.
China (IECS):	Listed.
Australia (AICS):	Listed.
New Zealand (NZIoC):	Listed.

16. OTHER INFORMATION

For Industrial Use Only.

Prepared by: Ferro Technical Center

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

End of Safety Data Sheet