



MATERIAL SAFETY DATA SHEET

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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: C-292EZ TURQUOISE 100 LB **Date of Preparation:** 12/20/2011
LDRM
Chemical Family: Decorative Coating
Synonym: Glass enamel/flux in medium.
CAS-No.: Mixture
C.I. Number: 77998
Product Code: 1026580

2. HAZARDS IDENTIFICATION

Emergency Overview

Caution

Avoid dust formation. May cause respiratory tract, eye and skin irritation. May cause physical irritation.

		HMIS	NFPA 704
Color:	Blue	1*	1
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.

Ingestion: May irritate digestive tract.

Chronic toxicity: No known effects under normal conditions of use. Excessive inhalation of dust may cause chemical pneumonitis, cyanosis, and pulmonary edema.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %
Zirconium vanadium blue zircon	68186-95-8	80 - 90%
Aluminum silicate	66402-68-4	10 - 20%
Silica, fumed	112945-52-5	0.5 - 1%

This product contains trace quantities of naturally occurring radioactive uranium, thorium and radium (<0.01% 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

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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. If not breathing, give artificial respiration.
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: The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Hazardous decomposition products: Metal fumes.

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. Ensure adequate ventilation. Wear personal protective equipment.

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. Prevent product from entering drains.

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

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. In case of insufficient ventilation, wear suitable respiratory equipment. Provide appropriate exhaust ventilation at places where dust is formed.

Storage:

Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits

Minimize exposure in accordance with good hygiene practice.

Components	OSHA	ACGIH
Zirconium vanadium blue zircon	5 mg/m ³ TWA Zr	10 mg/m ³ STEL Zr 5 mg/m ³ TWA Zr
Aluminum silicate	5 mg/m ³ TWA Zr	10 mg/m ³ STEL Zr 5 mg/m ³ TWA Zr 0.2 mg/m ³ TWA Mn

Engineering measures: 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. In case of insufficient ventilation wear suitable respiratory equipment . Seek professional advice prior to respirator selection and use. NIOSH-approved respirators should be worn where engineering controls and work practices do not reduce exposure to or below the PEL.
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:	Blue	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:	Not listed by IARC, NTP or OSHA as a carcinogen.
Target Organ Effects:	Vanadium: Eyes, respiratory system.

Component information, if any, is listed below

Aluminum silicate	
OSHA - Select Carcinogens:	Present
IARC - Group 2B:	Listed
Silica, fumed	
LD50s and LC50s:	Oral LD50 (Rat) = 3160 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic toxicity:	Information given is based on data on the components and the ecotoxicology of similar products
Persistence and degradability:	Not determined

13. DISPOSAL CONSIDERATIONS

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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
Vanadium compounds (80 - 90%)	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:
Vanadium compounds	Listed (PARTK)

Components	NJRTK:
Vanadium compounds	Listed (NJRTK)

Canadian WHMIS

WHMIS hazard class: Non-controlled

Canadian Ingredient Disclosure List (IDL):

Components	Canada - WHMIS Ingredient Disclosure:
Vanadium compounds	1

International Inventories

- TSCA 8(b):** Listed or exempt.
- Canadian DSL/NDSL list EC-No.** All ingredient(s) are listed on the DSL or NDSL
- 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