

SDS  
Lead Free Enamel  
SE-2 Separation Enamel



# Thompson Enamel

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## **SECTION 1: Identification of the substance/mixture and of the company**

Product Name: Lead Free Separation Enamel

Identified uses: For use in enameling

Synonyms: Enamel, SE-2, Separation enamel

Supplier: Thompson Enamel

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## **SECTION 2: Hazards identification**

Although these products may contain elements which have low TLV (threshold limit value) as soluble metal ions, this product has been formed at high temperatures and do not necessarily have any of the properties of their component oxides or metals. This product contains up to 19% Vanadium pentoxide which may be fatal if inhaled, absorbed through the skin or swallowed. Causes eye and respiratory tract irritation. May cause allergic respiratory and skin reaction. May cause skin irritation. Possible risk of harm to the unborn child. May cause lung damage.

## **SECTION 3: Composition/Information on ingredients**

**The specific chemical identities are being withheld as a trade secret (29CFR1910.1200).**

Frit, with CAS#65997-18-4 is a mixture of inorganic chemical substances produced by rapidly quenching a molten, complex combination of materials, confining the chemical substances thus manufactured as non-migratory components of glassy solid flakes or granules. These components are present as part of the Frit. Contains Vanadium oxide CAS#1314-62-1.

## **SECTION 4: First aid measures**

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Wash mouth out with water. Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

## **SECTION 5: Firefighting measures**

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Substance is noncombustible.

Decomposes at high temperatures releasing oxygen which may cause an existing fire to burn more vigorously.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 1

### **SECTION 6: Accidental release measures**

General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

### **SECTION 7: Handling and storage**

Handling: Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Do not breathe dust or fumes. Use only with adequate ventilation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Keep out of reach of children.

### **SECTION 8: Exposure Controls/Personal protection**

OSHA Vacated PELs: Vanadium pentoxide: 0.05 mg/m<sup>3</sup> TWA (respirable dust, as V<sub>2</sub>O<sub>5</sub>); 0.05 mg/m<sup>3</sup> TWA (fume, as V<sub>2</sub>O<sub>5</sub>)

Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

### **SECTION 9: Physical and chemical properties**

Physical state: Available as Solid or Liquid

Appearance: Available as powder or liquid

Color: Tan

Odor: Odorless glass, except for some reds and yellows which may give off a slight odor when fired.

Melting point: >850°

### **SECTION 10: Stability and reactivity**

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation.

Incompatibilities with Other Materials: Alkali metals, hydrochloric acid.

Hazardous Decomposition Products: Irritating and toxic fumes and gases, vanadium oxide (VO<sub>x</sub>) gases. Hazardous

Polymerization: Has not been reported.

### **SECTION 11: Toxicological information**

RTECS#: CAS# 1314-62-1: YW2125000; YW2450000; YW2460000

LD50/LC50: CAS# 1314-62-1: Draize test, rabbit, eye: 20 mg/24H Moderate; Inhalation, rat: LC50 = 126 mg/m<sup>3</sup>/6H;

Oral, mouse: LD50 = 23.4 mg/kg; Oral, mouse: LD50 = 5 mg/kg; Oral, rat: LD50 = 10 mg/kg; Skin, rabbit: LD50 = 50 mg/kg; .

Carcinogenicity: CAS# 1314-62-1: • ACGIH: Not listed. • California: carcinogen, initial date 2/11/05 • NTP: Not listed. • IARC: Group 2B carcinogen Epidemiology: In a study of 55 boilermakers exposed to vanadium pentoxide fume at > 0.05 mg/m<sup>3</sup>, the most frequent clinical presentation was secondary bronchitis.

Teratogenicity: The possibility of an embryotoxic effect has not yet been fully assessed. Pregnant women must not be exposed to the product. (Merck MSDS issued 22.07.2003.) Reproductive Effects: See actual entry in RTECS for complete information.

Mutagenicity: Laboratory experiment

### **SECTION 12: Ecological information**

No specific ecological data available for this product.

**SECTION 13: Disposal considerations**

RCRA P-Series: CAS# 1314-62-1: waste number P120.

RCRA U-Series: None listed..

**SECTION 14: Transportation information**

	US DOT	Canada
TDG Shipping Name:	VANADIUM PENTOXIDE	VANADIUM PENTOXIDE
Hazard Class:	6.1	6.1
UN Number:	UN2862	UN2862
Packing Group:	III	III

**SECTION 15: Regulatory information**

CAS# 1314-62-1 is listed on the TSCA inventory.

Health & Safety Reporting List None of the chemicals are on the Health & Safety Reporting List. Chemical Test Rules None of the chemicals in this product are under a Chemical Test Rule. Section 12b None of the chemicals are listed under TSCA Section 12b. TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs CAS# 1314-62-1: 1000 lb final RQ; 454 kg final RQ SARA Section 302 Extremely Hazardous Substances CAS# 1314-62-1: 100 lb TPQ (lower threshold); 10000 lb TPQ (upper threshold) SARA Codes CAS # 1314-62-1: immediate, delayed, fire. Section 313

This material contains Vanadium pentoxide (listed as Vanadium compounds), >98%, (CAS# 1314-62-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act: This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act: CAS# 1314-62-1 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: None of the chemicals in this product are considered highly hazardous by OSHA.

California Prop 65 The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act: WARNING: This product contains Vanadium pentoxide, a chemical known to the state of California to cause cancer. California No Significant Risk Level: None of the chemicals in this product are listed.

**SECTION 16: Other information****References**

DOT	Department of Transportation
OSHA	Occupational Safety and Health Administration
CAS	Chemical Abstracts Service
TSCA	Toxic Substances Control Act

This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

The information and recommendations contained in this SDS have been compiled from sources believed to be reliable and to represent current opinion on the subject when the SDS 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.

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