DO THE JOB RIGHT.

Material Safety Data Sheet

Manufactured For:
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II. COMPOSITION/INFORMATION ON INGREDIENTS - *(EXPOSURE LIMITS - SEE SECTION VIII)*

INGREDIENT NAME	CAS #	%
Titanium dioxide	13463-67-7	25.01 - 30.00
Barium Sulfate	7727-43-7	5.01 - 10.00
1,3,5-Triglycidyl Isocyanurate (TGIC)	2451-62-9	1.01 - 5.00
Zinc	7440-66-6	1.01 - 5.00
Silicon Dioxide (amorphous)	7631-86-9	1.01 - 5.00
Iron	7439-89-6	1.01 - 5.00
Aluminum oxide	1344-28-1	1.01 - 5.00
Nickel	7440-02-0	0.10 - 1.00

If ingredient percentages do not total 100%, the balance is due to rounding or applies to ingredient(s) deemed nonhazardous under 29 CFR 1910.1200 (Hazard Communication Standard).

III. HAZARDS IDENTIFICATION

	HMIS
HEALTH	2 *
FLAMMABILITY	1
REACTIVITY	0

0 = Least 1 = Slight 2 = Moderate 3 = High 4 = Extreme * = Chronic Health Effects

Routes of Entry: Inhalation, Ingestion, Skin contact, Eye contact.

Medical Conditions Aggravated: Lung disease, Eye disease, Skin disease including eczema and sensitization, Liver disease.

Immediate (Acute) Health Effects:

Low to moderate airborne particulate concentrations may induce respiratory irritation and/or aggravate pre-existing respiratory problems, even in the absence of a toxic component. High airborne particulate concentrations may also reduce visibility, cause injury to the skin or mucous membranes by chemical or mechanical action or by rigorous skin cleansing procedures needed for their removal. Dermatitis and sensitization may occur in susceptible individuals.

Inhalation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. Loss of appetite Nosebleeds This product may cause metal fume fever with resulting flu-like symptoms. Harmful. Can cause systemic damage, see target organs below.

Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Eye Contact: Contact with the eyes may cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible. Can cause mechanical irritation if dusts are generated.

ı Absorption: May cause irritation and minor systemic damage.

Ingestion: Toxic if swallowed. May cause target organ failure and/or death. Can cause abdominal discomfort, nausea, vomiting and diarrhea.

Target Organ Acute Toxicity: Respiratory System, Eyes, Skin, Liver, Heart.

Long-Term (Chronic) Health Effects:

Inhalation: Inhaling sufficiently high quantities of any dust can cause physiological changes in lung tissue, even in the absence of toxic components. No effects are expected when exposures are maintained below limits given elsewhere in this MSDS. Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. Prolonged contact with this product may cause allergic skin sensitization reactions.

Eye Contact: Upon prolonged or repeated contact, can cause moderate to severe eye injury. Eye contact may result in tearing and reddening, but not likely to permanently injure eye tissue. Temporary vision impairment (cloudy or blurred vision) is possible. Upon prolonged or repeated contact, dust contact can cause mechanical irritation.

Skin Absorption: Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause minor systemic damage.

Carcinogenicity: IARC: Yes NTP: Yes OSHA: No

ɟet Organ Chronic Toxicity: Respiratory System, Eyes, Skin, Liver, Heart.

This product contains pigments which may become a dust nuisance when removed by abrasive blasting, sanding or grinding.

IV. FIRST AID

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Eyes: Immediately flush eyes with plenty of luke warm water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Seek medical advice immediately. Provide ingredients information from Section II of this MSDS to the medical care provider. Contact your local Poison Control Center (listed in the telephone book), or dial the local "Emergency" (911) number for additional information. Do not induce vomiting unless instructed to do so by a physician or other competent medical personnel. Never give anything by mouth to an unconscious person.

V. FIRE FIGHTING MEASURES

Flash Point: N/A

ıgnition Temperature: N/A

Lower Flammable/Explosive Limit, % in air: 25 - 70 g/m3

General Hazard: Dusts can form an explosive or flammable mixtures with air. Ignitable bulk powder has an HMIS/NFPA flammability rating of 1. The same material dispersed in air at a concentration between its explosive limits has an HMIS/NFPA flammability rating of 4. Ignition may be initiated by hot surfaces, open flames or electrical sparks. This product, when dried or cured, may support combustion when subjected to sources of ignition or heat in sufficient amount.

Fire and Explosion Hazards: Bulk powder in storage or being transferred in closed containers has an HMIS/NFPA flammability rating of 1. If this material is transferred into a process or dispersed in a powder coating application where concentrations can reach the explosive limit, the HMIS/NFPA flammability rating is 4. Dusts of sufficient concentrations can form explosive mixtures with air. During a fire, irritating and toxic gases may be generated during combustion or decomposition.

Extinguishing Media: **Small Fires :** Foam, carbon dioxide, dry chemical or water spray.
Large Fires : Foam, water spray or fog.

Fire Fighting Instructions: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide, Nitrogen containing gases, Aldehydes, Hydrogen, Toxic fumes, Toxic gases.

VI. ACCIDENTAL RELEASE MEASURES

Health Consideration for Spill Response: Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section VIII of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including: the material spilled, the quantity of the spill, and the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Spill Mitigation Procedures:

Use vacuum equipment approved for use in collecting dusts from hazardous locations. Vacuum lines should be conductive and capable of being grounded. If sweeping, sweep carefully to minimize dusting. (If this product contains aluminum as an ingredient in Section II of this MSDS, do not use water to minimize dusting. Use compound/moisture for other powders to reduce dust.) Fine particles can cause a fire or explosion. Remove all sources of ignition and use spark free tools.

Uncontaminated material may be scooped up for reuse. If discarded, material should be placed in a receptacle for disposal in accordance with local, state and Federal regulations.

Air Release: Ventilate the area by opening door and/or turning on fans and blowers.

Water Release: Retain all contaminated water for treatment.

Land Spills: Avoid runoff into storm sewers and ditches that lead to waterways.

VII. HANDLING AND STORAGE

Handling: Harmful or irritating; avoid overexposure to the material. Use only in a well ventilated area. As with all chemicals, good industrial hygiene practices should be followed when handling this material. Minimize dust generation and accumulation. Do not get in eyes, on skin and clothing. Use spark-proof tools and explosion-proof equipment. Ground and bond containers when transferring material. May form flammable dust-air mixtures Guard against dust accumulation of this material. Remove contaminated clothing and wash before reuse. Launder work clothes frequently. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Store in a cool, dry place. Handling can create explosive dust clouds. Eliminate ignition sources. Use explosion proof electrical equipment. Ground process equipment in order to reduce sparking. Isolate from incompatible materials. Keep containers tightly closed.

Storage: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep container closed when not in use. Store in a cool dry place. Keep away from heat, sparks, and flame.

ENGINEERING CONTROLS, PERSONAL PROTECTIVE EQUIPMENT, AND EXPOSURE LIMITS

Engineering Controls: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. See table below for exposure limits. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Engineering controls must be designed to meet any relevant OSHA chemical specific standards in 29 CFR 1910. Explosion proof exhaust ventilation should be used.

Protective Equipment:

Respiratory Tract: If general or local exhaust ventilation is not available or sufficient to reduce exposure to below acceptable levels, then respiratory protection is required to avoid overexposure when handling this product.

Eyes: Wear safety glasses with side shields when handling this product. When the possibility exists for eye contact with splashing or spraying liquid, or airborne material, wear additional eye protection such as chemical splash goggles and/or face shield . Do not wear contact lenses. Have an eye wash station available.

Skin: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

Protective Clothing: Wear chemically resistant gloves and apron. (Consult your safety equipment supplier).

CHEMICAL NAME	CAS #	ACGIH TLV	OSHA PEL	IDLH
Titanium dioxide	13463-67-7	10 mg/m3 TWA	15 mg/m3 TWA (total dust)	5,000 mg/m3 IDLH
Barium Sulfate	7727-43-7	10 mg/m3 TWA (The value is for the total dust containing no asbestos and <1% crystalline silica)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	Not determined.
1,3,5-Triglycidyl Isocyanurate (TGIC)	2451-62-9	0.05 mg/m3 TWA	No PEL established	Not determined.
Zinc	7440-66-6	No TLV	No PEL established	Not determined.
Silicon Dioxide (amorphous)	7631-86-9	10 mg/m3 TWA	Respirable Dust: 20 mppcf	3000 mg/m3 IDLH
Iron	7439-89-6	As Fe: 1 mg/m3 TWA	No PEL established	Not determined.
inum oxide	1344-28-1	as Al: 10 mg/m3 TWA (The value is for total dust containing no asbestos and < 1% crystalline silica)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)	Not determined.
Nickel	7440-02-0	METAL: (1) MG/M3 TWA	METAL AND INSOLUBLE COMPOUNDS, AS NI: 1 MG/M3 TWA; SOLUBLE COMPOUNDS, AS NI: 1	Potential NIOSH carcinogen.

Nuisance particulates (nontoxic dusts) are expected to produce no health effects when airborne concentrations are maintained below the following limits: OSHA PEL = 5 mg/m3 (respirable fraction); 15 mg/m3 (total dust); ACGIH TLV = 10 mg/m3 (total particulates.)

IX. PHYSICAL DATA

Physical State: Powder.
Color: See "Product Name" in Section I of this MSDS.
Odor: Slight if any.
pH: N/A
Solubility in Water: Negligible
Vapor Density: N/A
Evaporation Rate: Not determined
Specific Gravity: 1.654
V.O.C. 0.0 Lbs./Gl. less water and exempt solvent; 0 grams/liter; 0.0 Lbs./Gl. w/w

The VOC content is determined by using a percent solids basis, less water and exempt solvents, for adhesives, coatings and inks and the calculations of EPA Reference Method 24 or equivalent ASTM method approved by the executive office.

Initial Boiling Point N/A
[illegible]al Freezing Point N/A

X. STABILITY AND REACTIVITY

Stability Information: Stable under normal conditions.
Conditions to Avoid: Contamination., Contact with water, Elevated temperatures.

Chemical Incompatibility: Strong oxidizing agents, Acids, Caustics (bases), Strong acids, Strong alkalies, Water, Moisture, Acetaldehydes, Nitrogen oxides, Ethylene oxide, Aluminum alloys, Ammonia, Oxidizing materials, Phosphorus, sulfur dioxide.

Hazardous Decomposition Products: Carbon dioxide, Carbon monoxide, Sulfur containing gases, Nitrogen containing gases, Aldehydes, Hydrogen, Toxic fumes, Toxic gases.

XI. TOXICOLOGICAL INFORMATION

Chemical Name	LD50/LC50
s-Triazine-2,4,6(1H,3H,5H)-trione, 1,3,5-tris(2,3-epoxypropyl)-	Oral LD50 Rat : 188 mg/kg
Iron	Oral LD50 Rat : 30 gm/kg

XII. ECOLOGICAL INFORMATION

Overview : Care should be taken to minimize releases of any industrial chemicals to the environment.

XIII. DISPOSAL CONSIDERATIONS

Disposal Methods: Information in this MSDS is provided only as a guide. Consult with competent authority to determine proper waste disposal procedures. Clean up and dispose of waste and clean-up materials in accordance with all federal, state, and local environmental regulations.

Potential EPA Waste Codes: Not determined.

Some Components Possibly Subjected to USEPA Land Disposal Restrictions:

When disposing of unused products or any waste, the preferred options are to send to a licensed reclaimer or to permitted incinerators. There may be some other ingredients subject to LDR categories. None expected.

XIV. TRANSPORTATION INFORMATION

Agency	Basic Description and Label
DOT	DOT & IATA: NOT REGULATED

Hazardous Substance

Nickel FINAL RQ = 100 POUNDS (45.4 KG) (NO REPORTING OF RELEASES OF THIS HAZARDOUS SU

XV. REGULATORY INFORMATION

Regulation

SARA 313 Reportable : Zinc, ., Nickel

TSCA Inventory : All components of this product are listed in, or exempt from, the TSCA 8(b) Inventory.

California Proposition 65 : The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986 - Proposition 65: "WARNING: This product contains chemical(s) known to the State of California to cause cancer."

XVI. ADDITIONAL INFORMATION

Major References: VENDOR'S MSDS's, PAINT & COATINGS HANDBOOK, EPA's LIST OF LISTS, AND OTHER PUBLISHED MATERIALS.

IMPORTANT: WHILE THE DESCRIPTIONS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, THEY ARE PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU PERFORM AN ASSESSMENT TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED, DATA OR INFORMATION SET FORTH. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, OR DATA PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, THE DESCRIPTIONS, DATA AND INFORMATION FURNISHED HERE ARE GIVEN GRATIS. NO OBLIGATIONS NOR LIABILITIES FOR THE DESCRIPTION, DATA AND INFORMATION GIVEN ARE ASSUMED. ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.