

ART 545

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

| | | |
|---|---------------------------------|--|
| MANUFACTURER'S NAME Mason Color & Chemical Works, Inc. | | EMERGENCY TELEPHONE NO. 216-385-4400 |
| ADDRESS (Number, Street, City, State, and ZIP Code) 250 E. Second St., P. O. Box 76, East Liverpool, Oh 43920 | | |
| CHEMICAL NAME AND SYNONYMS | | TRADE NAME AND SYNONYMS Turquoise Blue 6364 (K-3364) |
| CHEMICAL FAMILY Zr V CAS 68186-95-8 Zircon | FORMULA Not available | |

SECTION II - HAZARDOUS INGREDIENTS

| PAINTS, PRESERVATIVES, & SOLVENTS | % | TLV (Units) | ALLOYS AND METALLIC COATINGS | % | TLV (Units) |
|---|---|-------------|--|---|-------------|
| PIGMENTS | | | BASE METAL | | |
| CATALYST | | | ALLOYS | | |
| VEHICLE | | | METALLIC COATINGS | | |
| SOLVENTS | | | FILLER METAL PLUS COATING OR CORE FLUX | | |
| ADDITIVES | | | OTHERS | | |
| OTHERS | | | | | |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES | | | | % | TLV (Units) |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

SECTION III - PHYSICAL DATA

| | | | |
|-------------------------|-------|---------------------------------------|------|
| BOILING POINT (°F.) | N.A. | SPECIFIC GRAVITY (H ₂ O=1) | U |
| VAPOR PRESSURE (mm Hg.) | N.A. | PERCENT VOLATILE BY VOLUME (%) | None |
| VAPOR DENSITY (AIR=1) | N.A. | EVAPORATION RATE (_____ =1) | None |
| SOLUBILITY IN WATER | Trace | | |
| APPEARANCE AND ODOR | | | |

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

| | | | | | |
|------------------------------------|------|------------------|------|-----|-----|
| FLASH POINT (Method used) | N.A. | FLAMMABLE LIMITS | N.A. | Let | Uel |
| EXTINGUISHING MEDIA | N.A. | | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | N.A. | | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | None | | | | |

MATERIAL SAFETY DATA SHEET

SECTION I - IDENTIFICATION OF PRODUCT

SUPPLIER'S NAME Mason Color & Chemical Works, Inc. EMERGENCY TELEPHONE NUMBER 216-385-4400

ADDRESS 250 E. 2nd Street, P. O. Box 76, East Liverpool, Ohio 43920

Date this form prepared Nov. 1, 1985 Responsible for Preparation *Ronald Mason* Chemical Family Inorganic Pigment

Trade Name & Synonyms Turquoise Blue 6364 (K-3364) CAS Number 68186-95-8 *

Chemical name and Synonyms Zirconium Vanadium Blue - Zircon Basic Chemical Formula $(Zr,V)SiO_4$

SECTION II - HAZARDOUS INGREDIENTS

| MATERIAL OR COMPONENT | ACGIH-TWA (1985-86) | OCCUPATIONAL EXPOSURE LIMITS |
|---|--|--|
| This product is a mixture of various amounts of oxides of several metals, salts and some compounds considered to be a nuisance dust; however, all of these components are homogeneously and ionically interfused to form certain chemical structures and the final product does not represent individual component. | | OSHA-PEL |
| | 5 mg/m ³ as Zr | 5 mg/m ³ as Zr |
| | 0.05 mg/m ³ for V ₂ O ₅ dust & fume | dust 0.5 mg/m ³ fume 0.1 mg/m ³ |

* Contains modifier(s).

SECTION III - PHYSICAL DATA

| BOILING POINT (°C) | APPEARANCE AND COLOR | SPECIFIC GRAVITY (WATER=1) | % VOLATILE BY VOLUME |
|---------------------|------------------------|----------------------------|----------------------|
| N/A | Blue Powder - odorless | N/A | None |
| SOLUBILITY IN WATER | VAPOR PRESSURE (mm Hg) | VAPOR DENSITY (AIR=1) | EVAPORATION RATE |
| Trace | N/A | N/A | None |

SECTION IV - FIRE AND EXPLOSIVE DATA

| FLASH POINT (METHOD USED) | FLAMMABLE LIMITS | LEL | UEL |
|---------------------------|------------------|-----|-----|
| Non-Flamable | N/A | | |

EXTINGUISHING MEDIA Carbon dioxide, dry chemical or water spray.

SPECIAL FIRE FIGHTING PROCEDURES Not a fire hazard. Wear self-contained breathing apparatus when large quantities are involved.

UNUSUAL FIRE AND EXPLOSION HAZARDS None expected.

SECTION V - HEALTH HAZARD DATA

OCCUPATIONAL EXPOSURE LIMITS

See Section II

EFFECT OF OVEREXPOSURE

- Eye - May cause irritation.
- Skin - Skin contact may cause irritation - allergic skin rash.
- Inhalation - Inhalation of concentration above the Occupational Exposure Limit may cause irritation of respiratory passages, bronchitis. For detail see Section IX additional information.
- Ingestion - Toxic, may cause excessive coughing, intestinal disorders.

EMERGENCY AND FIRST AID PROCEDURES

- Eye - Flush thoroughly with potable water for 15 minutes. Consult physician.
- Skin - Remove contaminated clothing, wash thoroughly with soap & water. Consult physician.
- Inhalation - Remove to fresh air. May give oxygen. Consult physician.
- Ingestion - Induce vomiting if conscious. Consult physician.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Not determined for this product.

EFFECTS OF OVEREXPOSURE

EMERGENCY AND FIRST AID PROCEDURES None required

SECTION VI - REACTIVITY DATA

| | | | |
|-----------|----------|---|---------------------|
| STABILITY | UNSTABLE | | CONDITIONS TO AVOID |
| | STABLE | X | |

INCOMPATIBILITY *(Materials to avoid)*

HAZARDOUS DECOMPOSITION PRODUCTS

| | | | |
|--------------------------|----------------|---|---------------------|
| HAZARDOUS POLYMERIZATION | MAY OCCUR | | CONDITIONS TO AVOID |
| | WILL NOT OCCUR | X | |

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Use any feasible method for dry powder cleanup (i.e. vacuum, brush and pan, etc.)

WASTE DISPOSAL METHOD Inert land fill

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*
Nose mouth respirator to prevent inhalation and ingestion

| | | | |
|-------------|--|---------|------|
| VENTILATION | LOCAL EXHAUST To remove dusts | SPECIAL | None |
| | MECHANICAL <i>(General)</i> As required | OTHER | None |

PROTECTIVE GLOVES No EYE PROTECTION No

OTHER PROTECTIVE EQUIPMENT None

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

1. Prevent and/or remove dusts. 2. Maintain clean work area.

OTHER PRECAUTIONS Wash hands thoroughly before eating to prevent ingestion.

SECTION VI - REACTIVITY DATA

| | | | | | |
|-----------|-------------|---------------------|-----------------------------|---------------------|---------------------|
| STABILITY | UNSTABLE | CONDITIONS TO AVOID | HAZARDOUS POLYMERIZATION | MAY OCCUR | CONDITIONS TO AVOID |
| | STABLE X | N/A | | WILL NOT OCCUR X | N/A |

INCOMPATIBILITY (MATERIALS TO AVOID) N/A

HAZARD DECOMPOSITION PRODUCTS

Toxic Fumes of oxides may be present during decomposition.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Contain spill. Pick up the spill in an appropriate container for disposal.

WASTE DISPOSAL METHOD

Dispose in accordance with Federal, State and Local Laws.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFIC TYPE) Use NIOSH approved respiratory protection where airborne level exceeds appropriate Occupational Exposure Limit.

| | | |
|-------------|---------------------------|---|
| VENTILATION | LOCAL EXHAUST X | SPECIAL N/A |
| | MECHANICAL (GENERAL) X | OTHER Adequate to maintain below exposure limit. |

PERSONAL PROTECTIVE EQUIPMENT Wear appropriate gloves and goggles to avoid skin and eye contact. Safety showers and eyewash stations must be present in work area.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTION TO BE TAKEN IN HANDLING AND STORING Keep container closed. Protect against physical damage. Avoid contact with eyes, skin and clothing.

OTHER PRECAUTIONS Avoid breathing and use only with adequate ventilation. Wash thoroughly after handling. No food or beverage should be consumed in work area.

ADDITIONAL INFORMATION

Long term exposure to silica dust can cause silicosis which is characterized by shortness of breath.