

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

Occupational Safety and Health Administration (Non-Mandatory Form) Form Approved OMB No. 1218-0072

30607-0050

IDENTITY (As Used on Label and Use) CAS 65997-18-4* Enamel Frits Lead Free (Frit)

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I (59194-00)

59194-00

Manufacturer's Name: Thompson Enamel
Address: 650 Colfax Ave.
Bellevue, KY 41073

Emergency Telephone Number: 1-606/291-3800
Telephone Number for Information: 1-606/291-3800
Date Prepared: June 5, 1986

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s)) OSHA PEL ACGIH TLV Other Limits Recommended % (optional)
Although these products contain some elements which have low LTV values as soluble metal ions, these frits are formed at high temperatures and do not necessarily have any of the properties of their component oxides or metals.

Section III - Physical/Chemical Characteristics

Table with 4 columns: Property, Value 1, Property, Value 2. Includes Boiling Point (N/A), Vapor Pressure (N/A), Vapor Density (N/A), Specific Gravity (>2.0), Melting Point (>350°F), Evaporation Rate (0%).

Solubility in Water: 0%
Appearance and Odor: Odorless Glass

Section IV - Fire and Explosion Hazard Data

Table with 4 columns: Property, Value 1, Property, Value 2. Includes Flash Point (None), Extinguishing Media (None), Special Fire Fighting Procedures (None), Flammable Limits (None), LEL (N/A), UEL (N/A).

Usual Fire and Explosion Hazards: None

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| | | |
|--------|---|------|
| Stable | X | None |
|--------|---|------|

Flammability (Materials to Avoid) None

Hazardous Decomposition or Byproducts None

| | | | | |
|--------------------------|----------------|---|---------------------|------|
| Hazardous Polymerization | May Occur | | Conditions to Avoid | None |
| | Will Not Occur | X | | |

Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Yes Skin? No Ingestion? Yes

Health Hazards (Acute and Chronic) Alkali boro silicate glass. 15 mg/M³ for inert or nuisance dust.

Carcinogenicity: None IIRF? N/A IARC Monographs? N/A OSHA Regulated? No

Signs and Symptoms of Exposure Dust may irritate eyes. Prolonged exposure may cause irritation to respiratory track.

Medical Conditions Generally Aggravated by Exposure Not known

Emergency and First Aid Procedures Remove to dust free fresh air. If irritation develops, call a physician.

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled If not contaminated, scoop up and use. If contaminated, sweep up and discard in suitable container.

Waste Disposal Method Dispose according to Federal, State, and Local regulations.

Precautions to Be Taken in Handling and Storing Wear appropriate respirator if 15 mg/M³ working conditions are exceeded.

Other Precautions

Section VIII - Control Measures

Respiratory Protection (Specify Type) Use NIOSH approved dust respirator.

| | | | | |
|-------------|----------------------|----------------------------|---------|------|
| Ventilation | Local Exhaust | Adequate for dust control. | Special | None |
| | Mechanical (General) | Vent dust to collector. | Other | None |

Protective Gloves Use judgement - use work gloves Eye Protection Use judgement - avoid getting enamel in eyes.

Other Protective Clothing or Equipment Be clean and neat. Wear clean clothes.

Work/Hygiene Practices No eating or smoking when using enamel.

Material Safety Data Sheet 59199-00
 May be used to comply with 59195-00
 OSHA's Hazard Communication Standard,
 29 CFR 1910.1200. Standard must be
 consulted for specific requirements.

U.S. Department of Labor 30607-0000
 Occupational Safety and Health Administration
 (Non-Mandatory Form)
 Form Approved
 OMB No. 1218-0072

30607-1409



IDENTITY (As Used on Label and Lists) CAS 65997-18-4*
 Jewel Effect Lumps Lead Free (Frit)

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

| | | |
|--|--|----------------------------------|
| Manufacturer's Name Thompson Enamel | Emergency Telephone Number 1-606/291-3800 | 59195-00 |
| Address (Number, Street, City, State, and ZIP Code) 650 Colfax Ave. | Telephone Number for Information 1-606/291-3800 | 59198-00-BJM95 |
| Bellevue, KY 41073 | Date Prepared June 5, 1986 | 59199-00 |
| | Signature of Preparer (optional) | 59196-00-BJM95 59197-00-BJM95 |

Section II — Hazardous Ingredients/Identify Information

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional) |
|---|----------|-----------|--------------------------|--------------|
| Although these products contain some elements which have low LTV values as soluble metal ions, these frits are formed at high temperatures and do not necessarily have any of the properties of their component oxides or metals. | | | | |

Section III — Physical/Chemical Characteristics

| | | | |
|-------------------------|-----|---|--------|
| Boiling Point | N/A | Specific Gravity (H ₂ O = 1) | >2.0 |
| Vapor Pressure (mm Hg) | N/A | Melting Point | >850°F |
| Vapor Density (AIR = 1) | N/A | Evaporation Rate (Butyl Acetate = 1) | 0% |
| Solubility in Water | 0% | | |

Appearance and Odor
 Odorless Glass

Section IV — Fire and Explosion Hazard Data

| | | | |
|--|--------------------------|------------|------------|
| Flash Point (Method Used) None | Flammable Limits None | LEL N/A | UEL N/A |
| Extinguishing Media None | | | |
| Special Fire Fighting Procedures None | | | |

Additional Fire and Explosion Hazards
 None

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Section V — Reactivity Data

| | | | |
|-----------|----------|---|-----------------------------|
| Stability | Unstable | | Conditions to Avoid None |
| | Stable | X | |

Incompatibility (Materials to Avoid) None

Hazardous Decomposition or Byproducts None

| | | | |
|--------------------------|----------------|---|-----------------------------|
| Hazardous Polymerization | May Occur | | Conditions to Avoid None |
| | Will Not Occur | X | |

Section VI — Health Hazard Data

Route(s) of Entry: Inhalation? Yes Skin? No Ingestion? Yes

Health Hazards (Acute and Chronic) Alkali boro silicate glass. 15 mg/M³ for inert or nuisance dust.

Carcinogenicity: None NTP? N/A IARC Monographs? N/A OSHA Regulated? No

Signs and Symptoms of Exposure Dust may irritate eyes. Prolonged exposure may cause irritation to respiratory track.

Medical Conditions Generally Aggravated by Exposure Not known

Emergency and First Aid Procedures Remove to dust free fresh air. If irritation develops, call a physician.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
If not contaminated, scoop up and use. If contaminated, sweep up and discard in suitable container.

Waste Disposal Method Dispose according to Federal, State, and Local regulations.

Precautions to Be Taken in Handling and Storing
Wear appropriate respirator if 15 mg/M³ working conditions are exceeded.

Other Precautions

Section VIII — Control Measures

Respiratory Protection (Specify Type)
Use NIOSH approved dust respirator.

| | | | | |
|-------------|----------------------|-----------------------------------|---------|-------------|
| Ventilation | Local Exhaust | <u>Adequate for dust control.</u> | Special | <u>None</u> |
| | Mechanical (General) | <u>Vent dust to collector.</u> | Other | <u>None</u> |

Protective Gloves Use judgement - use work gloves Eye Protection Use judgement - avoid getting enamel in eyes.

Other Protective Clothing or Equipment Wear clean clothes.

Work/Involving Practices No eating or smoking when using enamel.

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

59190-12
-24
59191-all
59193-all

U.S. Department of Labor

Occupational Safety and Health Administration

(Non-Mandatory Form)

Form Approved

OMB No. 1218-0072

30607- all codes except
-0000 -1409
-0050



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IDENTITY (As Used on Label and List) CAS 65997-18-4*
Lead Free Jewelry Enamels (Frit)

Section I

Manufacturer's Name
Thompson Enamel

Address (Number, Street, City, State, and ZIP Code)
650 Golfax Ave.

Bellevue, KY 41073

Emergency Telephone Number
1-606/291-3800

Telephone Number for Information
1-606/291-3800

Date Prepared
June 5, 1986

Signature of Preparer (optional)

59190-12 net
59190-24 net
59191-all codes
59193-all codes

Section II - Hazardous Ingredients/Identity Information

| Hazardous Components (Specific Chemical Identity; Common Name(s)) | OSHA PEL | ACGIH TLV | Other Limits Recommended | % (optional) |
|---|----------|-----------|--------------------------|--------------|
|---|----------|-----------|--------------------------|--------------|

Although these products contain some elements which have low LTV values as soluble metal ions, these frits are formed at high temperatures and do not necessarily have any of the properties of their component oxides or metals.

Section III - Physical/Chemical Characteristics

| | | | |
|-------------------------|-----|---|--------|
| Boiling Point | N/A | Specific Gravity (H ₂ O = 1) | >2.0 |
| Vapor Pressure (mm Hg.) | N/A | Melting Point | >850°F |
| Vapor Density (Air = 1) | N/A | Evaporation Rate (Butyl Acetate = 1) | 0% |

Solubility in Water **0%**

Appearance and Odor
Odorless Glass

Section IV - Fire and Explosion Hazard Data

| | | | |
|--|---|-------------------|-------------------|
| Flash Point (Method Used) None | Flammable Limits None | LEL N/A | UEL N/A |
| Extinguishing Media None | Special Fire Fighting Procedures None | | |

Unusual Fire and Explosion Hazards
None

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Section V — Reactivity Data

| | | | |
|-----------|----------|---------------------|------|
| Stability | Unstable | Conditions to Avoid | None |
| | Stable | | |
| | | X | |

Incompatibility (Materials to Avoid) **None**

Hazardous Decomposition or Byproducts **None**

| | | | |
|--------------------------|----------------|---------------------|------|
| Hazardous Polymerization | May Occur | Conditions to Avoid | None |
| | Will Not Occur | | |
| | | X | |

Section VI — Health Hazard Data

| | | | | | | |
|--------------------|-------------|-----|-------|----|------------|-----|
| Route(s) of Entry: | Inhalation? | Yes | Skin? | No | Ingestion? | Yes |
| | | | | | | |

Health Hazards (Acute and Chronic) **Alkali boro silicate glass. 15 mg/M³ for inert or nuisance dust.**

| | | | | | | | |
|------------------|------|------|-----|------------------|-----|-----------------|----|
| Carcinogenicity: | None | NIP? | N/A | IARC Monographs? | N/A | OSHA Regulated? | No |
| | | | | | | | |

Signs and Symptoms of Exposure **Dust may irritate eyes. Prolonged exposure may cause irritation to respiratory track.**

Medical Conditions Generally Aggravated by Exposure **Not known**

Emergency and First Aid Procedures **Remove to dust free fresh air. If irritation develops, call a physician.**

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
If not contaminated, scoop up and use. If contaminated, sweep up and discard in suitable container.

Waste Disposal Method **Dispose according to Federal, State, and Local regulations.**

Precautions to Be Taken in Handling and Storing
Wear appropriate respirator if 15 mg/M³ working conditions are exceeded.

Other Precautions

Section VIII — Control Measures

Respiratory Protection (Specify Type)
Use NIOSH approved dust respirator.

| | | | |
|-----------------------------------|----------------------|---------|------|
| Ventilation | Local Exhaust | Special | None |
| | Mechanical (General) | | |
| Adequate for dust control. | | Other | None |
| Vent dust to collector. | | | |

Protective Gloves **Use judgement - use work gloves** Eye Protection **Use judgement - avoid getting enamel in eyes**
 Other Protective Clothing or Equipment **Be clean and neat. Wear clean clothes.**

Work/Inhalation Practices **No eating or smoking when using enamel.**