



Material Safety Data Sheet

Issuing Date 21-Jun-2011

Revision Date 22-Aug-2011

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name HPS-7 Structural MMA Yellow MMA (4:1)
Product Code(s) MY0007
UN-Number UN1263
Recommended Use Traffic paint
Product Technology MMA

Supplier Address

Ennis Paint Inc.
5910 North Central Expressway
Suite 1050
Dallas TX 75206
T: 800.331.8118
800.331.8118 (For Technical Inquiries)

Chemical Emergency Phone Number Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Flammable liquid
Irritating to respiratory system and skin
May produce an allergic reaction
Cancer hazard

WARNING! This product contains a chemical known in the State of California to cause cancer and birth defects or other reproductive harm.

Appearance Yellow

Physical State Viscous liquid.

Odor Acrid fruity

Potential Health Effects

Acute Toxicity

Eyes
Skin

May cause irritation.
Irritating to skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Inhalation
Ingestion

Irritating to respiratory system.
Ingestion may cause irritation to mucous membranes.

Chronic Effects

Repeated contact may cause allergic reactions in very susceptible persons. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product. Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1). This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

Aggravated Medical Conditions Skin disorders. Respiratory disorders.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % |
|-----------------------|------------|----------|
| Quartz | 14808-60-7 | 15-40 |
| Methyl Methacrylate | 80-62-6 | 15-40 |
| 2-Ethylhexyl acrylate | 103-11-7 | 10-30 |
| Titanium dioxide | 13463-67-7 | 3-7 |
| Methyl pyrrolidone | 872-50-4 | 0.1-1 |
| Ethyl benzene | 100-41-4 | <0.1 |

4. FIRST AID MEASURES

| | |
|-----------------------------------|---|
| General Advice | Show this safety data sheet to the doctor in attendance. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation persists, call a physician. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing before re-use. Consult a physician. |
| Inhalation | Move to fresh air. If not breathing, give artificial respiration. Administer oxygen if breathing is difficult. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Seek immediate medical attention/advice. |
| Ingestion | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. |
| Notes to Physician | Treat symptomatically. May cause sensitization of susceptible persons. |
| Protection of First-aiders | Remove all sources of ignition. Use personal protective equipment. |

5. FIRE-FIGHTING MEASURES

| | |
|--|---|
| Flammable Properties | Flammable liquid. |
| Flash Point | 55.4°F / 13°C |
| Suitable Extinguishing Media | Dry chemical, CO ₂ , water spray or alcohol-resistant foam. |
| Unsuitable Extinguishing Media | CAUTION: All these products have a very low flash point. Use of water spray when fighting fire may be inefficient. |
| Explosion Data | |
| Sensitivity to Mechanical Impact | None |
| Sensitivity to Static Discharge | Yes. |
| Specific Hazards Arising from the Chemical | Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). |
| Protective Equipment and Precautions for Firefighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |

| | | | | |
|-------------|-------------------------|-----------------------|--------------------------|--|
| NFPA | Health Hazard 2 | Flammability 3 | Instability 2 | Physical and Chemical Hazards - |
| HMIS | Health Hazard 2* | Flammability 3 | Physical Hazard 2 | Personal Protection X |

6. ACCIDENTAL RELEASE MEASURES

| | |
|----------------------------------|---|
| Personal Precautions | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use personal protective equipment. Avoid contact with skin, eyes and clothing. |
| Environmental Precautions | Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. |
| Methods for Containment | Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal. |
| Methods for Cleaning Up | Dam up. Use personal protective equipment. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically and collect in suitable container for disposal. |
| Other Information | Water spray may reduce vapor; but may not prevent ignition in closed spaces. |

7. HANDLING AND STORAGE

| | |
|-----------------|--|
| Handling | Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. |
| Storage | Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------------------------|--|--|---|
| Ethyl benzene 100-41-4 | STEL: 125 ppm TWA: 100 ppm | TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³ | IDLH: 800 ppm TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm STEL: 545 mg/m ³ |
| Quartz 14808-60-7 | TWA: 0.025 mg/m ³ respirable fraction | TWA: 0.1 mg/m ³ (vacated) | IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust |
| Titanium dioxide 13463-67-7 | TWA: 10 mg/m ³ | TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust | IDLH: 5000 mg/m ³ |
| Methyl Methacrylate 80-62-6 | STEL: 100 ppm TWA: 50 ppm | TWA: 100 ppm TWA: 410 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 410 mg/m ³ | IDLH: 1000 ppm TWA: 100 ppm TWA: 410 mg/m ³ |

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. NIOSH IDLH: Immediately Dangerous to Life or Health.

Other Exposure Guidelines

Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Engineering Measures

Showers. Eyewash stations. Explosion proof ventilation systems.

Personal Protective Equipment

Eye/Face Protection Skin and Body Protection Respiratory Protection

Safety glasses with side-shields.
Protective gloves.

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-----------------------------------|---------------------------|------------------------------------|---------------------------|
| Appearance | Yellow. | Odor | Acrid fruity . |
| Odor Threshold | No information available | Physical State | Viscous liquid |
| pH | No information available. | Autoignition Temperature | No information available. |
| Flash Point | 55.4°F / 13°C | Boiling Point/Boiling Range | No information available |
| Decomposition Temperature | No information available. | Explosion Limits | No information available. |
| Melting Point/Range | No information available | Evaporation Rate | No information available |
| Flammability Limits in Air | No information available. | Vapor Density | No data available |
| Solubility | No information available. | | |
| Vapor Pressure | No data available | | |
| VOC Content (%) | 17.0468 | | |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Stability | Stable under recommended storage conditions. |
| Incompatible Products | Alkaline. Amines. Oxidizing or reducing agents. Sulfur compounds. |
| Conditions to Avoid | Keep away from open flames, hot surfaces and sources of ignition. |
| Hazardous Decomposition Products | Carbon monoxide (CO). Carbon dioxide (CO ₂). |
| Hazardous Polymerization | Polymerization may occur when exposed to excessive heating and incompatibles. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

No acute toxicity information is available for this product.

Component Information

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------|----------------------|---|---|
| Methyl pyrrolidone | = 3598 mg/kg (Rat) | = 2000 mg/kg (Rabbit) = 2500 mg/kg (Rat) | = 3.1 mg/L (Rat) 4 h |
| Quartz | 500 mg/kg (Rat) | | |
| 2-Ethylhexyl acrylate | = 4435 mg/kg (Rat) | = 7522 mg/kg (Rabbit) | |
| Methyl Methacrylate | = 7872 mg/kg (Rat) | > 5 g/kg (Rabbit) | = 400 ppm (Rat) 1 h = 4632 ppm (Rat) 4 h |

Chronic Toxicity

Chronic Toxicity

Repeated contact may cause allergic reactions in very susceptible persons. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product. Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1). This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product. Titanium dioxide has been classified by the International Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B) by inhalation.

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|-----------------------|-------|----------|-------|------|
| Quartz | A2 | Group 1 | Known | X |
| Methyl Methacrylate | | Group 3 | | |
| 2-Ethylhexyl acrylate | | Group 3 | | |
| Titanium dioxide | | Group 2B | | X |
| Ethyl benzene | A3 | Group 2B | - | - |

ACGIH: (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3: Not Classifiable as to its Carcinogenicity to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Target Organ Effects

Respiratory system.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Daphnia Magna (Water Flea) |
|-----------------------|---|--|--|--|
| Methyl Methacrylate | EC50 96 h: = 170 mg/L (Pseudokirchneriella subcapitata) | LC50 96 h: 125.5-190.7 mg/L static (Pimephales promelas) LC50 96 h: 153.9-341.8 mg/L static (Lepomis macrochirus) LC50 96 h: 170-206 mg/L flow-through (Lepomis macrochirus) LC50 96 h: 243-275 mg/L flow-through (Pimephales promelas) LC50 96 h: 326.4-426.9 mg/L static (Poecilia reticulata) LC50 96 h: > 79 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: > 79 mg/L static (Oncorhynchus mykiss) | | EC50 48 h: = 69 mg/L (Daphnia magna) |
| 2-Ethylhexyl acrylate | EC50 72 h: = 44 mg/L (Desmodesmus subspicatus) EC50 96 h: = 47 mg/L (Desmodesmus subspicatus) | LC50 48 h: = 23 mg/L (Leuciscus idus melanotus) | EC50 > 10000 mg/L 30 min | EC50 48 h: = 17.45 mg/L (Daphnia magna) |
| Methyl pyrrolidone | EC50 72 h: > 500 mg/L (Desmodesmus subspicatus) | LC50 96 h: = 1072 mg/L static (Pimephales promelas) LC50 96 h: = 1400 mg/L static (Poecilia reticulata) LC50 96 h: = 4000 mg/L static (Leuciscus idus) LC50 96 h: = 832 mg/L static (Lepomis macrochirus) | | EC50 48 h: = 4897 mg/L (Daphnia magna) |
| Ethyl benzene | EC50 96 h: 1.7 - 7.6 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: 2.6 - 11.3 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: = 4.6 mg/L (Pseudokirchneriella subcapitata) EC50 96 h: > 438 mg/L (Pseudokirchneriella subcapitata) | LC50 96 h: 11.0-18.0 mg/L static (Oncorhynchus mykiss) LC50 96 h: 7.55-11 mg/L flow-through (Pimephales promelas) LC50 96 h: 9.1-15.6 mg/L static (Pimephales promelas) LC50 96 h: = 32 mg/L static (Lepomis macrochirus) LC50 96 h: = 4.2 mg/L semi-static (Oncorhynchus mykiss) LC50 96 h: = 9.6 mg/L static (Poecilia reticulata) | EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h | EC50 48 h: 1.8 - 2.4 mg/L (Daphnia magna) |

| Chemical Name | Log Pow |
|-----------------------|---------|
| Methyl Methacrylate | 0.7 |
| 2-Ethylhexyl acrylate | 4.64 |
| Methyl pyrrolidone | -0.46 |
| Ethyl benzene | 3.118 |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Do not re-use empty containers. Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

US EPA Waste Number D001

| Chemical Name | RCRA | RCRA - Basis for Listing | RCRA - D Series Wastes | RCRA - U Series Wastes |
|-------------------------------|------|-----------------------------------|------------------------|------------------------|
| Methyl Methacrylate - 80-62-6 | U162 | Included in waste stream: F039 | | U162 |

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste |
|---------------------|----------------------------|
| Methyl Methacrylate | Toxic Ignitable |
| Ethyl benzene | Toxic Ignitable |

| |
|----------------------------------|
| 14. TRANSPORT INFORMATION |
|----------------------------------|

DOT

| | |
|--|----------------------|
| UN-Number | UN1263 |
| Proper shipping name | Paint |
| Hazard Class | 3 |
| Subsidiary Class | None |
| Packing Group | II |
| Description | UN1263,Paint,3,PG II |
| Emergency Response Guide Number | 128 |

TDG

| | |
|-----------------------------|----------------------|
| UN-Number | UN1263 |
| Proper Shipping Name | Paint |
| Hazard Class | 3 |
| Packing Group | II |
| Description | UN1263,PAINT,3,PG II |

MEX

| | |
|-----------------------------|-------------------|
| UN-Number | UN1263 |
| Proper Shipping Name | Paint |
| Hazard Class | 3 |
| Packing Group | II |
| Description | UN1263 Paint,3,II |

ICAO

| | |
|-----------------------------|----------------------|
| UN-Number | UN1263 |
| Proper shipping name | Paint |
| Hazard Class | 3 |
| Packing Group | II |
| Description | UN1263,Paint,3,PG II |

IATA

| | |
|-----------------------------|----------------------|
| UN-Number | UN1263 |
| Proper Shipping Name | Paint |
| Hazard Class | 3 |
| Packing Group | II |
| ERG Code | 3L |
| Description | UN1263,Paint,3,PG II |

IMDG/IMO

| | |
|-----------------------------|-------------------------------|
| UN-Number | UN1263 |
| Proper Shipping Name | Paint |
| Hazard Class | 3 |
| Packing Group | II |
| EmS No. | F-E, S-E |
| Description | UN1263, Paint,3,PG II, FP 13C |

RID

| | |
|-----------------------------|-------------------|
| UN-Number | UN1263 |
| Proper Shipping Name | Paint |
| Hazard Class | 3 |
| Packing Group | II |
| Classification Code | F1 |
| Description | UN1263 Paint,3,II |

ADR

UN-Number UN1263
Proper Shipping Name Paint
Hazard Class 3
Packing Group II
Classification Code F1
Description UN1263 Paint,3,II

ADN

UN-No UN1263
Proper Shipping Name Paint
Hazard Class 3
Packing Group II
Classification Code F1
Special Provisions 163, 640C, 650
Description UN1263 Paint,3,II
Hazard Labels 3
Limited Quantity LQ6
Ventilation VE01

15. REGULATORY INFORMATION**International Inventories**

TSCA Complies
DSL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical Name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---------------------|---------|----------|-------------------------------|
| Methyl Methacrylate | 80-62-6 | 16.8 | 1.0 |

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard Yes
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Methyl Methacrylate | 1000 lb | | | X |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ |
|---------------------|--------------------------|------------------------------------|---|
| Methyl Methacrylate | 1000 lb | | RQ 1000 lb final RQ RQ 454 kg final RQ |

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

| Chemical Name | CAS-No | California Prop. 65 |
|--------------------|------------|---------------------|
| Methyl pyrrolidone | 872-50-4 | Developmental |
| Ethyl benzene | 100-41-4 | Carcinogen |
| Quartz | 14808-60-7 | Carcinogen |

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania | Illinois | Rhode Island |
|-----------------------|------------|---------------|--------------|----------|--------------|
| Methyl pyrrolidone | X | X | X | | |
| Quartz | X | X | X | - | X |
| Titanium dioxide | X | X | X | - | X |
| 2-Ethylhexyl acrylate | X | X | X | | X |
| Methyl Methacrylate | X | X | X | X | X |

International Regulations

| Chemical Name | Carcinogen Status | Exposure Limits |
|---------------------|-------------------|--|
| Quartz | | Mexico: TWA= 0.1 mg/m ³ |
| Titanium dioxide | | Mexico: TWA= 10 mg/m ³ Mexico: STEL= 20 mg/m ³ |
| Methyl Methacrylate | | Mexico: TWA 100 ppm Mexico: TWA 410 mg/m ³ Mexico: STEL 125 ppm Mexico: STEL 510 mg/m ³ |

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B2 Flammable liquid
D2A Very toxic materials
D2B Toxic materials



16. OTHER INFORMATION

Prepared By Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 21-Jun-2011
Revision Date 22-Aug-2011
Revision Note Product Code change. (M)SDS sections updated. 14.

General Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication and it does not purport to be all inclusive and shall be used only as a guide. We urge each customer or recipient of this MSDS to study it carefully to become aware of and understand the potential hazards associated with the product. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text. Any use of the product not in conformance with this MSDS or in combination with any other product or process is the responsibility of the user. Customary precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Remove all soiled and contaminated clothing immediately.

End of Safety Data Sheet