

Material Safety Data Sheet

Date Issued: 2/7/2011
Flowfast Standard Sealer
Page 1 of 9

1. Chemical Product and Company Identification

FLOWFAST Standard Sealer

Synonyms: Solution of an acrylic polymer

Supplier:
Manufacturer:

Flowcrete North America
11133 Interstate 45 South, Suite K
Conroe, Texas 77302

Non-Emergency Product:
Information: 936-539-6700
Emergency Only:
CHEMTREC: 800-424-9300

Product Use: binder for floor-coating

2. Composition/Information on Ingredients

This material is classified as hazardous under OSHA regulations

| Reg. No. | Ingredients | Weight | CAS |
|-----------|---------------------------|---------|-----|
| 62-6 | Methyl methacrylate | > 50 | 80- |
| 3077-12-1 | Ethoxylated paratoluidine | 1 - 2.5 | |

See Section 8, Exposure Controls/Personal Protection

3. Hazards Identification

Emergency Overview

| | | |
|--------|-------------|------------------------------------|
| turbid | Color: | Colorless, clear to cloudy, highly |
| | Appearance: | low-viscosity |
| | Odor: | sweet, ester-like |

Flammable liquid and vapor
May cause sensitization by skin contact.
May be ignited by heat, sparks or flame.
Vapors can travel to a source of ignition and flash back.

Danger of bursting of closed systems due to vigorous exothermic polymerization.

Avoid uncontrolled polymerization.

Container may explode when heated.

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

May be irritating to respiratory system and skin.

----- Page 2-----

Material Safety Data Sheet

Date Issued: 2/7/2011

Flowfast Standard Sealer

Page 2 of 9

Primary Routes of Exposure

Inhalation

Skin Contact

Potential Health Effects

Inhalation

May cause irritation to the respiratory tract.

Eye Contact

May cause eye irritation.

Skin Contact

May cause irritation and sensitization of the skin.

Not expected to be absorbed through the skin in toxic amounts.

Ingestion

Expected to be slightly toxic by ingestion.

Chronic Effects

No chronic (long-term) effects are known for humans.

Aggravated Medical Conditions

Conjunctivitis of the eye, dermatitis of the skin, asthma and respiratory diseases.

Potential Environmental Effects

See SECTION 12, Ecological Information.

4. First Aid Measures

First Aid Procedures

Inhalation

Remove to fresh air. If irritation persists, call a physician.

Administer oxygen if

breathing is difficult. Apply artificial respiration if victim is not breathing.

Eye Contact

In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if

irritation develops or persists. DO NOT WEAR CONTACT LENSES
WHEN USING THIS
PRODUCT.

Skin Contact

In case of contact, wash skin with soap and water. If
irritation persists, call a physician.

Ingestion

Call a physician or poison control center immediately. Do NOT
induce vomiting.

----- Page 3-----

Material Safety Data Sheet

Date Issued: 2/7/2011
Flowfast Standard Sealer
Page 3 of 9

5. Fire-fighting measures

Flash point 11.5oC (Setaflash
Closed Cup) (methyl methacrylate)
52.7oF (Setaflash
Closed Cup) (methyl methacrylate)

Ignition temperature 430oC (DIN 51794)
(methyl methacrylate)
806oF (DIN 51794)
(methyl methacrylate)

Autoignition temperature Not available

Lower explosion limit 2.1% (V) (methyl
methacrylate)

Upper explosion limit 12.5% (V) (methyl
methacrylate)

OSHA Flammability Classification Flammable liquid

Other Flammable Properties

Vapors are heavier than air and can form an explosive mixture
with air. Never use welding or
cutting torches on or near containers or drums (even when
empty). Product residue or vapor in
drums or container can ignite explosively. Cool warm or
bulging containers to ambient
temperature with water from a safe distance. Then wear
eye and face protection and protective
clothing while carefully opening bung to vent pressure.

Extinguishing Media

Use the following extinguishing media when fighting fires
involving this material:

Dry chemical - carbon dioxide - alcohol resistant foam

Fire Fighting Procedures

Evacuate enclosed and surrounding areas. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to cool containers exposed to fire and disperse vapors. Keep spills away from sources of ignition.

6. Accidental Release Measures

Procedures

Remove sources of ignition and ventilate area. All equipment used when handling the product must be grounded. Absorb spill with inert material and place in a chemical waste container. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. See section 8, Exposure Controls/Personal Protection.

7. Handling and Storage

Handling

Product is supplied in a stabilized form. Stir well before decanting from drum. Open container carefully as it may be pressurized. Use portable ventilation if necessary at job site. Ground and bond containers when transferring material. Keep container tightly closed. Use explosion-proof equipment. Do not eat, drink, smoke or chew tobacco around material.

Storage

- o o
- Keep in the original container at a temperature not exceeding 25 C (77 F). Do not store in direct sunlight. Keep away from heat. Keep away from sparks, flames and other sources of ignition.
- Ensure the area is well ventilated. Keep container closed when not in use. Limit storage of flammable liquids to approved areas equipped with overhead sprinklers. Protect material from

----- Page 4-----

Material Safety Data Sheet

contamination (refer to Section 110 for incompatibilities).
 Fill the container by approximately 80%
 only as oxygen (air) is required for stabilization. With large
 storage containers make sure the
 oxygen (air) supply is sufficient to ensure stability. Residual
 vapors might explode on ignition; do
 not apply heat, cut, drill, grind or weld on or near this
 container.

8. Exposure Controls/Personal Protection

Exposure Limit Information

METHYL METHACRYLATE

(CAS No. 80-62-6)

Carcinogen designation(s) USA : EPA-E ; EPA-NL ; IARC-3 ; TLV-

A4

| Occupational Exposure Values : | | | Remarks : |
|--------------------------------|---------|-----------------------|------------|
| ACGIH TLV-TWA | 50 ppm | 205 mg/m ³ | Sensitizer |
| OSHA PEL-TWA | 100 ppm | 410 mg/m ³ | |
| ACGIH TLV-STEL | 100 ppm | 410 mg/m ³ | Sensitizer |
| OSHA PEL-STEL | | | not |
| established | | | |
| OEL-TWA (Alberta) | 100 ppm | 410 mg/m ³ | |
| OEL-STEL (Alberta) | 125 ppm | 510 mg/m ³ | |
| OEL-TWA (British Columbia) | 50 ppm | | Skin |
| designation (skin absorption) | | | can |
| contribute to the overall | | | exposure). |
| causing respiratory or | | | Capable of |
| sensitization. Keep exposure | | | skin |
| reasonably achievable. | | | as low as |
| OEL-STEL (British Columbia) | 125 ppm | | Skin |
| designation (skin absorption) | | | can |
| contribute to the overall | | | exposure). |
| causing respiratory or | | | Capable of |
| sensitization. Keep exposure | | | skin |
| reasonably achievable). | | | as low as |
| OEL-TWA (Ontario) | 100 ppm | 410 mg/m ³ | |
| OEL-STEL (Ontario) | | | Not |
| established | | | |
| OEL-TWA (Quebec) | 100 ppm | 410 mg/m ³ | |
| OEL-STEL (Quebec) | | | Not |
| established | | | |

| | | |
|-------------------|---------|-----------|
| OEL-TWA (Mexico) | 100 ppm | 410 mg/m3 |
| OEL-STEL (Mexico) | 125 ppm | 510 mg/m3 |

Engineering Controls (Ventilation)

Provide general and/or local exhaust ventilation to maintain airborne levels below the exposure limits in Section 8. Refer to the current edition of 'Industrial Ventilation: A Manual of Recommended Practice' published by the American Conference of Government Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Respiratory Protection

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Eye Protection

Use safety glasses with side shields.

----- Page 5-----

Material Safety Data Sheet

Date Issued: 2/7/2011
 Flowfast Standard Sealer
 Page 5 of 9

Skin Protection

On handling of larger quantities: face mask, chemical-resistant boots and apron

Hand Protection

Butyl rubber gloves
 Gloves should be replaced regularly, especially after extended contact with the product.
 For each work-place a suitable glove type has to be selected.

Other Protective Equipment

A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

9. Physical and Chemical Properties

| | |
|---------------------------------------|---------------------|
| Appearance | Colorless, clear to |
| cloudy, highly turbid | |
| Physical state | low-viscosity |
| Odor | sweet, ester-like |
| Flash point | 11.5oC (Setaflash |
| Closed Cup) (methyl methacrylate) | |
| | 52.7oF (Setaflash |
| Closed Cup) (methyl methacrylate) | |
| pH-value | not applicable |
| o o | |
| Specific gravity (water =1) | 1.00 g/cm3 at 20 C |
| / 68 F | |
| o | o |
| Vapor density (air=1) | >1 g/cm3 at 20 C / |
| 68 F | |
| Vapor pressure | 38.7 mbar at 20o |
| o | |
| C / 68 F | |
| Melting Temperature | -48oC / -54oF |
| (methyl methacrylate) | |
| o | o |
| Boiling Temperature | approx. 100 C / |
| 212 F at 1,013 hPa (= mbar) | |
| o o | |
| Solubility in water | approx 20 g/l at 20 |
| C / 68 F | |
| Coefficient of Water/Oil | not available |
| Distribution | |
| Evaporation rate | >1 (butyl acetate = |
| 1) | |
| Odor threshold | <1 ppm |
| Further information | none |
| See Section 5, Fire Fighting measures | |

10. Stability and Reactivity

Stability

This product is stable under normal storage conditions.

Condition To Avoid

Heat and ignition sources, aging, contamination, oxygen free atmosphere.

Incompatibility With Other Materials

Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.

Hazardous Decomposition Products

None when used as directed.

----- Page 6-----

Material Safety Data Sheet

Date Issued: 2/7/2011

Flowfast Standard Sealer

Page 6 of 9

Hazardous Polymerization

The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is noticeably exceeded, the product may polymerize with heat evolution.

May occur when exposed to excessive heating or contaminated with incompatible materials.

Danger of bursting of closed systems due to vigorous exothermic polymerization. Avoid uncontrolled polymerization.

11. Toxicological Information

Acute Oral Toxicity

LD50 rat

7872 mg/kg

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Acute Inhalational Toxicity

LC50 rat, 4h

3750 ppm

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Acute Dermal Toxicity

LD50 rabbit

>5,000 mg/kg

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Irritant Effect on the Skin

Contact with skin may cause irritation. (analogy)

Irritant Effect on the Eyes

Contact with the eyes may cause irritation. (analogy)

Sensitization

May cause sensitization by skin contact.

The data mentioned above refer to the product.

Toxicity on Repeated Administration

Rat, inhalation, 2a, 0 - 400 ppm

NOAEL 25ppm

Findings: Damage to mucous membranes in the nose at 400 ppm

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Rat, in drinking water, 2a, 0 - 2000 ppm

NOAEL 2000ppm

Findings: no toxic effects

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Mutagenicity

Positive as well as negative results in in vitro mutagenicity/genotoxicity tests.

No experimental indication of genotoxicity in vivo available.

In summary, not mutagenic according to internationally accepted criteria

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Carcinogenicity

Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs.

Source: literature

The data mentioned above refer to the component methyl methacrylate.

----- Page 7-----

Material Safety Data Sheet

Date Issued: 2/7/2011

Flowfast Standard Sealer

Page 7 of 9

Reprotoxicity

No indications of toxic effects were observed in reproduction studies in animals.

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Further information on

There are no toxicological data available for the product as such. Avoid contact with the skin and eyes and inhalation of the product vapors.

12. Ecological Information

Information on Elimination (Persistence and Degradability)
Biodegradability

Biodegradable

The data mentioned above refer to the product

Ecotoxicological Effect

Fish Toxicity

> 79 mg/l

LC50

(analogy)

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Daphnia Toxicity

EC50 Daphnia magna, OECD 202, flow through, 48h
69 mg/l

Source: literature

The data mentioned above refer to the component methyl methacrylate.

NOEC Daphnia magna, OECD 202 part 2, flow through, 21d
37 mg/l

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Algae Toxicity

EC3 Scenedesmus quadricauda, DIN 38412 section 9, 8 d
37m g/l

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Bacteria Toxicity

EC0 Pseudomonas putida
100 mg/l

Source: literature

The data mentioned above refer to the component methyl methacrylate.

Further information on Ecology

Do not allow to enter soil, waterways or waste water.

13. Disposal Consideration

Procedures

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH> Do not reuse containers.

----- Page 8-----

Material Safety Data Sheet

Date Issued: 2/7/2011
Flowfast Standard Sealer
Page 8 of 9

14. Transport Information

US DOT Hazard Classification

| | |
|-----------------------|----------------------------------|
| Proper Shipping Name: | Resin Solution |
| Technical Name: | (containing methyl methacrylate) |
| Hazard Class: | 3 |
| ID/UN Number | UN 1866 |
| Packing Group: | II |
| ERG: | 127 |

Canadian TDG Classification

Refer to the classification US DOT

Shipment by sea IMDG/GGVSee

| | |
|--|--|
| Class 3 | EmS F-E, S-E |
| UN Number: | 1866 |
| Marine pollutant | Packed (+/0): 0 |
| Packaging group | II |
| Proper Shipping name methyl methacrylate) | Resin solution (containing methyl methacrylate) |
| Hazardous constituent: | Methyl methacrylate |

Air transport ICAO/IATA

| | |
|--|--|
| Class 3 | |
| UN Number: | 1866 |
| Packaging group: | II |
| Proper Shipping Name methyl methacrylate) | Resin solution (containing methyl methacrylate) |

15. Regulatory Information

INVENTORY INFORMATION

| | |
|------------|--------|
| USA TSCA | listed |
| Canada DSL | listed |

US FEDERAL REGULATORY INFORMATION

| | | | | |
|------------------------|-----------------------|----------|-----------|-----------------|
| SARA 302 | SARA 313 | TSCA 12b | | CERCLA RQ [lbs] |
| | Component / CASRN | | TPQ [lbs] | (40CFR302.4) |
| List of EHS (40CFR372) | Methyl methacrylate / | | NONE | 1000 |
| NO | YES | NO | | |
| | 80-62-6 | | | |

COMPONENT CLASSIFICATION UNDER CLEAN AIR ACT SECTION 112

| | | |
|-----|---------------------|----------|
| | Component / CASRN | Weight % |
| HAP | EHAP | |
| | Methyl methacrylate | 40 - 70 |
| YES | NO | |
| | 80-62-6 | |

PRODUCT CLASSIFICATION UNDER SECTION 311/312 OF SARA (40CFR370)
ACUTE, FIRE REACTIVE,

----- Page 9-----

Material Safety Data Sheet

Date Issued: 2/7/2011
Flowfast Standard Sealer
Page 9 of 9

CANADIAN REGULATION

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

This is a controlled product.
WHMIS: B2, D2B

| | |
|-----------------------------|------|
| Component / CASRN | NPRI |
| Methyl methacrylate | YES |
| 80-62-6 | |
| Ethoxylated paratoluidine / | |
| 3077-12-1 | NO |

16. Other Information

| | | |
|----------------|-----------------|---|
| Flammability | Health | |
| HMIS - Ratings | Physical Hazard | |
| 2 | 2 | 3 |

NFPA - Ratings
2

2

3

| NFPA Hazard Ratings | HMIS Hazard Ratings | |
|-------------------------|---------------------------|---|
| = extreme | 4 = severe | 4 |
| = high | 3 = serious | 3 |
| = moderate | 2 = moderate | 2 |
| = slight | 1 = slight | 1 |
| = insignificant | 0 = minimal | 0 |
| = no rating for powders | N = no rating for powders | N |
| | * = chronic health hazard | |

This MSDS was prepared in accordance with ANSI Z400.1 - 1998.