

Material Safety Data Sheet

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1. Chemical Product and Company Identification

FLOWFAST Standard Primer

Synonyms: Solution of an acrylic polymer in methacrylic acid esters

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	25 - 50	80-
90-5	1,2-Ethanediol-dimethacrylate	1 - 2.5	97-
868-77-9	2-hydroxyethylmethacrylate	25 - 50	

See Section 8, Exposure Controls/Personal Protection

3. Hazards Identification

Emergency Overview

Color: colorless, highly turbid
Appearance: low-viscosity
Odor: sweet, ester-like

Flammable liquid and vapor
Irritating to respiratory system and skin
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.

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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.

5. Fire-fighting measures

Flash point Closed Cup) (methyl methacrylate)	11.5oC (Setaflash 52.7oF (Setaflash
Closed Cup) (methyl methacrylate)	
Ignition temperature (methyl methacrylate)	430oC (DIN 51794)
(methyl methacrylate)	806oF (DIN 51794)
Autoignition temperature	Not available
Lower explosion limit methacrylate)	2.1% (V) (methyl
Upper explosion limit methacrylate)	12.5% (V) (methyl
OSHA Flammability Classification	Flammable liquid

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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

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 ; EPA-NL ; IARC-3 ; TLV-A4

Occupational Exposure Values : Remarks
:

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ACGIH TLV-TWA	50 ppm	205 mg/m3	Sensitizer
OSHA PEL-TWA	100 ppm	410 mg/m3	
ACGIH TLV-STEL	100 ppm	410 mg/m3	Sensitizer
OSHA PEL-STEL			not
established			
OEL-TWA (Alberta)	100 ppm	410 mg/m3	
OEL-STEL (Alberta)	125 ppm	510 mg/m3	
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/m3	
OEL-STEL (Ontario)			Not
established			
OEL-TWA (Quebec)	100 ppm	410 mg/m3	
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.

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

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Appearance colorless, highly
turbid
Physical state low-viscosity

Odor	sweet, ester-like
Flash point Closed Cup) (methyl methacrylate)	11.5°C (Setaflash
	52.7°F (Setaflash
Closed Cup) (methyl methacrylate)	
pH-value	not applicable
Viscosity (outflow time)	13 - 18 s at 23°C
o	
/ 73 F (ISO 2431, 4 mm cup)	C
o	
o	
Specific gravity (water =1)	0.94 g/cm ³ at 20 C
/ 68 F	
Vapor density (air=1)	>1 at 20 C / 68 F
Vapor pressure at 20°C	38.7 mbar
Freezing Temperature determined	/ -54°F not
o	
o	
Boiling Temperature	approx. 100 C /
212 F at 1,013 hPa (= mbar)	
o	
o	
Solubility in water	approx 16 g/l at 20
C / 68 F	
Coefficient of Water/Oil	1.38 log POW
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.

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.

11. Toxicological Information

Acute Oral Toxicity

LD50 rat

7872 mg/kg

Source: literature

The data mentioned above refer to the component methyl methacrylate.

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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

Rabbit, 24h, FDA 1959 Draize, occlusive

Not irritating

The data mentioned above refer to the component methyl methacrylate.

Irritant Effect on the Eyes

Rabbit, Draize

The data mentioned above refer to the component methyl methacrylate. Not irritating

Sensitization

In sensitization testes on guinea pigs with and without adjuvant, both positive and negative results were found, source: literature

In humans various types of allergic reactions have been observed (symptoms: headache, eye irritations, skin affections). Source: literature

The data mentioned above refer to the component methyl methacrylate.

Toxicity on Repeated Administration

Rat, inhalation, 2a, 25 - 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, 5 - 2000 ppm
NOAEL 2000ppm

Finings: 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 rates, mice and dogs.

Source: literature

The data mentioned above refer to the component methyl methacrylate.

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.

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12. Ecological Information

Information on Elimination (Persistence and Degradability)
Biodegradability

Readily degradable, OECD 301C, 14d
94%

The data mentioned above refer to the component methyl methacrylate.

Ecotoxicological Effect

Fish Toxicity

>79 mg/l

LC50 *Oncorhynchus mykiss*, rainbow trout, OECD 203, flow Through, GLP, 96h
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

EC50 *Selenastrum capricornutum*, OECD 201, 96h
170mg/l

Source: literature
The data mentioned above refer to the component methyl methacrylate.

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.

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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 3-05

UN Number:

1866

Marine pollutant

Packed (+/0): 0

Packaging group

II

Proper Shipping name

Resin solution (containing

methyl methacrylate)

Hazardous constituent:

Methyl methacrylate

Air transport ICAO/IATA

Class 3

UN Number:

1866

Packaging group: II
Proper Shipping Name Resin solution (containing
methyl methacrylate)

15. Regulatory Information

INVENTORY INFORMATION

USA TSCA listed
Canada DSL all components are listed or are
exempted from listing

US FEDERAL REGULATORY INFORMATION

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

COMPONENT CLASSIFICATION UNDER CLEAN AIR ACT SECTION 112

HAP	Component / CASRN	Weight %
YES	EHAP Methyl methacrylate NO 80-62-6	60 - 100

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

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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	

1,2-Ethanediol-dimethacrylate /
97-90-5

NO

2-hydroxyethylmethacrylate /
868-77-9

NO

16. Other Information

Flammability	Health	
HMIS - Ratings	Physical Hazard	
2	2	3

NFPA - Ratings	2	3
2		

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.