

MATERIAL SAFETY DATA SHEET
SRS Degadur

Degadur R 41 Primer/Sealer

SECTION I – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SYNONYMS: Solution of an acrylic polymer in methacrylic acid esters
PRODUCT USE: Binder for floor-coating

DISTRIBUTOR'S NAME: SUPERIOR EPOXIES & COATINGS, INC.
ADDRESS: 2527 Lantrac Court
Decatur, GA 30035

NON-EMERGENCY PRODUCT INFO: 1-800-543-3516
EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC, 24 Hours)

SECTION II – COMPOSITION/INFORMATION ON INGREDIENTS

This material is classified as hazardous under OSHA regulations.

<u>Ingredients</u>	<u>CAS Reg. No.</u>	<u>Weight %</u>
methyl methacrylate	80-62-6	60 – 100
acrylic polymer	proprietary	10 – 30
methacrylic acid ester	proprietary	3 – 7
substituted tertiary amine	proprietary	0.5 – 1.5

NJTSR # 80100103-5053P

See Section VIII, Exposure Controls/Personal Protection

SECTION III – HAZARDS IDENTIFICATION

Emergency Overview

Color: colorless, 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.

Primary Routes of Exposure – Inhalation and 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 XII, Ecological Information

SECTION IV – 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 for at least 20 minutes. Hold eyelids apart during flushing to ensure rinsing of the entire surface of the eye with 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 water and soap. If irritation persists, call a physician.

Ingestion – Call a Poison Control Center or doctor immediately. Do NOT induce vomiting.

SECTION V – FIRE-FIGHTING MEASURES

Flash Point	9° C (Setaflash Closed Cup) (methyl methacrylate)
	48° F (Setaflash Closed Cup) (methyl methacrylate)
Ignition Temperature	430° C (DIN 51794) (methyl methacrylate)
	806° F (DIN 51794) (methyl methacrylate)
Auto-ignition 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: alcohol-resistant foam – dry chemical – carbon dioxide.

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.

SECTION VI – ACCIDENTIAL RELEASE MEASURES

Procedures

– Remove sources of ignition and ventilate area. Dike far ahead of spill for later disposal. 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 VIII, Exposure Controls/Personal Protection.

SECTION VII – 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

– 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. Keep container closed when not in use. Ensure the area is well ventilated. Limit storage of flammable liquids to approved areas equipped with overhead sprinklers. Protect material from contamination (refer to Section X 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.

SECTION VIII – 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:			Remark(s):
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). Capable of causing respiratory or skin sensitization. Keep exposure as low as reasonably achievable.
OEL-STEL (British Columbia)	125 ppm		Skin designation (skin absorption can contribute to the overall exposure). Capable of causing respiratory or skin sensitization. Keep exposure as low as reasonably achievable.
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 exhaust ventilation to maintain airborne levels below the exposure limits in Section VIII. 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.

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.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless, turbid
Physical State	Low-viscosity
Odor	Sweet ester-like
Flash Point	9° C (Setaflash Closed Cup) (methyl methacrylate) 48° F (Setaflash Closed Cup) (methyl methacrylate)
pH-value	Not applicable
Viscosity (outflow time)	13 – 18 s at 23° C / 73° F (ISO 2431, 4 mm cup)
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	37.8 hPa (=mbar) at 20° C / 68° F (methyl methacrylate)
Freezing Temperature	/ -54° F not determined
Boiling Temperature	Approx. 100° C / 212° F at 1,013 hPa (=mbar)
Solubility in Water	Approx. 16 g/l at 20° C / 68° F
Coefficient of Water/Oil Distribution	Not available
Evaporation Rate	> 1 (butyl acetate = 1)
Odor Threshold	< 1 ppm
Further Information	None

See Section V, Fire Fighting Measures

SECTION X – STABILITY AND REACTIVITY

Stability – This product is stable under normal storage conditions.

Conditions 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.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Oral Toxicity

LD50 rat

> 5,000 mg/kg

Source: literature
Related to substance: methyl methacrylate

Acute Inhalational Toxicity

LC50 rat, 4 h 29.8 mg/l
Source: literature
Related to substance: methyl methacrylate

Acute Dermal Toxicity

LD50 rabbit > 5,000 mg/kg
Source: literature
Related to substance: methyl methacrylate

Irritant Effect on the Skin

Rabbit, 24 h, FDA 1959 Draize, occlusive not irritating
Related to substance: methyl methacrylate

Irritant Effect on the Eyes

Rabbit, Draize not irritating
Related to substance: methyl methacrylate

Sensitization

Guinea pig – In sensitization tests on guinea pigs with and without adjuvant, both positive and negative results were found.

Source: literature

Man

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

Source: literature

Related to substance: methyl methacrylate

Toxicity on Repeated Administration

Rat, inhalation, 2 a, 25 – 400 ppm **NOAEL 25 ppm**

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

Source: literature

Related to substance: methyl methacrylate

Rat, in drinking water, 2 a, 6 – 2000 ppm **NOAEL 2000 ppm**

Findings: no toxic effects

Source: literature

Related to substance: methyl methacrylate

Mutagenicity

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

No experimental indication of genotoxicity in vivo available.

In summary not mutagenic according to internationally accepted criteria.

Source: literature

Related to substance: methyl methacrylate

Carcinogenicity

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

Source: literature

Related to substance: methyl methacrylate

Reprotoxicity

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

Source: literature

Related to substance: methyl methacrylate

Further Information on Toxicology

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

SECTION XII – ECOLOGICAL INFORMATION

Information on Elimination (Persistence and Degradability)

Biodegradability

Readily degradable, OECD 301 C, 14 d 94%
The data mentioned above refer to the component methyl methacrylate.

Ecotoxicological Effect

Fish Toxicity

LC50 *Oncorhynchus mykiss*, rainbow trout, OECD 203, flow through, GLP, 96 h > 79 mg/l
Source: literature
The data mentioned above refer to the component methyl methacrylate.

Daphnia Toxicity

EC50 *Daphnia magna*, OECD 202, flow through, 48 h 69 mg/l
Source: literature
The data mentioned above refer to the component methyl methacrylate.
NOEC *Daphnia magna*, OECD 202 part 2, flow through, 21 d 37 mg/l
Source: literature
The data mentioned above refer to the component methyl methacrylate.

Algae Toxicity

EC50 *Selenastrum capricornutum*, OECD 201, 96 h 170 mg/l
Source: literature
The data mentioned above refer to the component methyl methacrylate.
EC3 *Scenedesmus quadricauda*, DIN 38412 section 9, 8 d 37 mg/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

SECTION XIII – DISPOSAL CONSIDERATIONS

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.

SECTION XIV – 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)

SECTION XV – REGULATORY INFORMATION

Inventory Information

EC EINECS:	Listed
USA TSCA:	Listed
Canada DSL:	All components are listed or are exempted from listing
Australia AICS	Listed
Japan MITI	Listed
South Korea ECL	Listed
Philippines PICCS	Listed
New Zealand	Not available
China	Not available

US Federal Regulatory Information

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

Component Classification under Clean Air Act Section 112

Component / CASRN	Weight %	HAP	EHAP
Methyl methacrylate / 80-62-6	60 – 100	Yes	No

Product Classification under Section 311/312 of SARA (40CFR370)

Acute, Fire, Reactive

US State Regulatory Information

Component / CASRN	New Jersey RTK	Pennsylvania RTK	Massachusetts RTK	California Proposition 65 Cancer	California Proposition 65 Reproductive
Methyl methacrylate / 80-62-6	Yes	Yes	Yes	No	No
Acrylic polymer / Proprietary	No	No	No	No	No
Methacrylic acid ester / Proprietary	No	No	No	No	No
Substituted tertiary amine / Proprietary	No	No	No	No	No

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 / 80-62-6: Yes

Methacrylic acid ester / proprietary: No

Substituted tertiary amine / proprietary: No

SECTION XVI – OTHER INFORMATION

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

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

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

DISCLAIMER

The information contained herein is based on the data available to us and is believed to be accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. No responsibility is assumed for injury from the use of this product.