

SAFETY DATA SHEET

P-50026

A-30100

10-113

A-30102

A-30104

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: On-Spec 9000 Epoxy

Product Code: Resin Part A

SUPPLIER:

Michigan Coating

3761 Eastern Ave SE

Wyoming, MI 49508

Emergency telephone: 800-373-7542

24 hours

MANUFACTURER:

Michigan Coating

3761 Eastern Ave SE

Wyoming, MI 49508

Emergency telephone: 800-373-7542

24 hours

Product Use:

Not recommended for:

SECTION 2 - HAZARDS IDENTIFICATION

NEPA Ratings, risks phrases and suggested HMIS Hazards Categories:

GHS Ratings:

Flammable liquid

2

Skin corrosive

3

Eye corrosive

2A

Mutagen

1B

Carcinogen

2

Reproductive toxin

1A

Flash point < 23°C and initial boiling point > 35°C (95°F)

Reversible adverse effects in dermal tissue, Draize score:
>= 1.5 < 2.3

Eye irritant: Subcategory 2A, Reversible in 21 days

Known to produce heritable mutations in human germ cells
Subcategory 1B, Positive results: In vivo heritable germ cell tests in mammals, Human germ cell tests, In vivo somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity

Limited evidence of human or animal carcinogenicity

Based on human evidence

GHS Hazards

H225

Flammable liquid and vapour

H316

Causes mild skin irritation

H319

Causes serious eye irritation.

H340

May cause genetic defects.

H351

Suspected of causing cancer.

H360

May damage fertility or the unborn child.

GHS Precautions

P201

Obtain special instructions before use.

P202

Do not handle until all safety precautions have been read and understood.

P210

KEEP AWAY FROM HEAT/sparks/open flames/hot surfaces - No smoking.

P233

Keep container tightly closed.

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof electrical/ventilating/light/equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static discharge.

P264

WASH HANDS THOROUGHLY after handling.

P280

WEAR PROTECTIVE GLOVES/protective clothing/eye protection/face protection.

P281

USE PERSONAL PROTECTIVE EQUIPMENT as required.

P303+P361+P353

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
Rinse skin with water/shower.

P305+P351+P338

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P308+P313

IF exposed or concerned: Get medical advice/attention.

P332+P313

If skin irritation occurs: Get medical advice/attention.

P337+P313

If eye irritation persists: Get medical advice/attention.

P370+P378

IN CASE OF FIRE: Use dry chemical (BC) or carbon dioxide (Co2) for extinction.

P405

Store locked up.

P403+P235

STORE IN A WELL VENTILATED PLACE. Keep cool.

P501

Dispose of contents/container in accordance with Local, State and Federal Regulations.

Signal Word: Danger



SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS number	Weight Concentration %
Ethyl acetate	141-78-6	20.00% - 30.00%
2-Pentanone, 4-methyl-	108-10-1	20.00% - 30.00%
Bisphenol A diglycidyl ether - bisphenol A copolymer	25036-25-3	20.00% - 30.00%
Diacetone alcohol	123-42-2	5.00% - 10.00%
Diisobutyl ketone	108-83-8	5.00% - 10.00%
Ethyl alcohol	64-17-5	1.00% - 5.00%
2-Heptanone, 4,6-dimethyl-	19549-80-5	1.00% - 5.00%
Toluene	108-88-3	1.00% - 5.00%

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove to FRESH air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. GET MEDICAL ATTENTION IMMEDIATELY.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Tilt head to avoid contaminating unaffected eye. Get immediate medical attention. Remove contact lenses if possible.

SKIN CONTACT: Flush skin with plenty of water while removing contaminated clothing and shoes. Do not reuse clothing or shoes until cleaned. If irritation develops or persists, get medical attention. Discard contaminated leather articles such as shoes and belt. Do not apply oils or ointments unless ordered by the physician.

INGESTION: If fully conscious, give two glasses of water, then induce vomiting by touching back of throat with finger. Keep head below hips to prevent aspiration of liquid into the lungs. CALL A PHYSICIAN immediately. Never induce vomiting or give anything by mouth to an unconscious victim.

NOTE TO PHYSICIANS: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Individuals experiencing breathing difficulties after exposure to vapor generated in aerosol applications should be observed for at least 48 hours in case delayed respiratory complications develop.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: -5 C (23 F)

LEL: 1.00

UEL:

Flammable Limits: Highly flammable liquid and vapor (GHS Category 2)

Extinguishing Media: Alcohol Foam CO2 Dry Chemical Foam Water Fog

Unusual Fire and Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, and open flame. Closed containers may

explode when exposed to extreme heat. Do not use when smoking or where electrical sparks or open flame is present.

Haz. Combust. Products: Burning can produce carbon-dioxide and/or carbon monoxide.

Fire Fighting: Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Fire Equipment: As in a fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK PROCEDURES:

Spill supervisor: Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection. Remove all ignition sources. Keep nonessential personnel away from the contaminated area.

Small Spills: Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth.

Large Spills: Avoid run-off into storm sewers and ditches that lead to waterways. Use only non-sparking tools and equipment. A vapor suppressing foam may be used. Approach the spill from upwind and pick up absorbent material and place it in a suitable container. Disposal should be in accordance with Local, State, and Federal Regulations.

SECTION 7 - HANDLING AND STORAGE

HANDLING PRECAUTIONS:

Wear all appropriate Personal Protective Equipment (PPE). Wear respiratory protection or ensure adequate ventilation at all times as vapors can accumulate in confined or poorly ventilated areas. Use the product in a manner which minimizes splashes and/or the creation of dust. Keep containers closed when not in use. Do not handle or store material near heat, sparks, open flames, or other sources of ignition. Store at room temperatures, i.e., 40 to 95 F (4 to 35 C).

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: GROUNDING: when transferring, fill stem and container must be grounded and bonded. Store in a cool dry area with ventilation suitable for storing materials shown in section II. Keep away from heat, sparks and open flame. Do not cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Ethyl acetate 141-78-6	400 ppm TWA; 1400 mg/m3 TWA	400 ppm TWA	NIOSH: 400 ppm TWA; 1400 mg/m3 TWA
2-Pentanone, 4-methyl- 108-10-1	100 ppm TWA; 410 mg/m3 TWA	75 ppm STEL 20 ppm TWA	NIOSH: 50 ppm TWA; 205 mg/m3 TWA 75 ppm STEL; 300 mg/m3 STEL
Bisphenol A diglycidyl ether - bisphenol A copolymer 25036-25-3	Not Established	Not Established	Not Established
Diacetone alcohol 123-42-2	50 ppm TWA; 240 mg/m3 TWA	50 ppm TWA	NIOSH: 50 ppm TWA; 240 mg/m3 TWA
Diisobutyl ketone 108-83-8	50 ppm TWA; 290 mg/m3 TWA	25 ppm TWA	NIOSH: 25 ppm TWA; 150 mg/m3 TWA
Ethyl alcohol 64-17-5	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm STEL	NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA
2-Heptanone, 4,6-dimethyl- 19549-80-5	Not Established	Not Established	Not Established
Toluene 108-88-3	200 ppm TWA	20 ppm TWA	NIOSH: 100 ppm TWA; 375 mg/m3 TWA 150 ppm STEL; 560 mg/m3 STEL

ENGINEERING: Ensure processing (curing) ovens are properly vented to prevent the introduction of processing fumes into the work place. Use explosion proof equipment and good manufacturing practice.

Sufficient ventilation, in volume and pattern, should be provided to keep air contamination below current applicable OSHA permissible exposure limit or ACGIH'S TLV limit.

OTHER PRECAUTIONS: Provide respiratory protection against fumes generated during burning. Avoid prolonged contact with skin and

breathing of vapors.

PROTECTIVE GEAR: NIOSH/OSHA approved respirator types suitable for materials in section 11 recommended. Approved airline type respirators or hoods recommended in confined areas. Wear protective gloves/clothing/eye/face as required.

CONTAMINATED GEAR: Take off immediately any contaminated clothing and wash it before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

This mixture typically exhibits the following properties under normal circumstances:

Appearance Liquid dispersion Vapor Pressure: Not Applicable Vapor Density Heavier than air SG 0.91 Freezing point: Not Applicable Boiling range: 114°C Evaporation Rate Slower than ether Autoignition temperature: Not Applicable Viscosity: Not Applicable VOC: Actual 691 gr/ltr	Odor Solvent Odor threshold: Not Applicable pH: Not Applicable Melting point: Not Applicable Solubility: Not Applicable Flash point: -5 C, 23 F Physical State Liquid Decomposition temperature: Not Applicable Boiling Point 114°C VOC: Actual 5.76 lb/gal
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SECTION 10 - STABILITY AND REACTIVITY

Stability:

STABLE

Components of this mixture are incompatible with the following materials:

No data found

This mixture is likely to exhibit the following combustion products:

No data found

Hazardous polymerization will not occur.

SECTION 11- TOXICOLOGICAL INFORMATION

Mixture Toxicity

Oral Toxicity LD50: 4,653mg/kg

Inhalation Toxicity LC50: 30mg/L

Component Toxicity

108-88-3

Toluene

Oral LD50: 636 mg/kg (Rat) Inhalation LC50: 13 mg/L (Rat)

Toxicological Information: No data found

ROUTES OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Contact

Exposure to this material may affect the following organs:

Blood Eyes

Kidneys

Liver

Central Nervous System

Reproductive System

Skin

Respiratory System

Effects of Overexposure

Carcinogenicity:

The following chemicals comprise 0.1% or more of this mixture and are listed and / or classified as carcinogens or potential carcinogens by NTP, IARC, OSHA.

<u>CAS Number</u>	<u>Description</u>	<u>% Weight</u>	<u>Carcinogen Rating</u>
64-17-5	Ethyl alcohol	1 to 5%	Ethyl alcohol: IARC: Human carcinogen OSHA: listed
108-10-1	2-Pentanone, 4-methyl-	0 to 30%	2-Pentanone, 4-methyl-: IARC: Possible human carcinogen OSHA: listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecological information: No data found.

Component Ecotoxicity

Ethyl acetate	96 Hr LC50 Pimephales promelas: 220 - 250 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 484 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 352 - 500 mg/L [semi-static] 48 Hr EC50 Daphnia magna: 560 mg/L [Static]
2-Pentanone, 4-methyl-	96 Hr LC50 Pimephales promelas: 496 - 514 mg/L [flow-through] 48 Hr EC50 Daphnia magna: 170 mg/L 96 Hr EC50 Pseudokirchneriella subcapitata: 400 mg/L
Diacetone alcohol	96 Hr LC50 Lepomis macrochirus: 420 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 420 mg/L
Diisobutyl ketone	96 Hr LC50 Oncorhynchus mykiss: 140 mg/L [semi-static] 96 Hr EC50 Pseudokirchneriella subcapitata: 100 mg/L
Ethyl alcohol	96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through] 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]
Toluene	96 Hr LC50 Pimephales promelas: 15.22 - 19.05 mg/L [flow-through] (1 day old) ; 96 Hr LC50 Pimephales promelas: 12.6 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.89 - 7.81 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 14.1 - 17.16 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static]; 96 Hr LC50 Lepomis macrochirus: 11.0 - 15.0 mg/L [static]; 96 Hr LC50 Oryzias latipes: 54 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static]; 96 Hr LC50 Poecilia reticulata: 50.87 - 70.34 mg/L [static] 48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static]; 48 Hr EC50 Daphnia magna: 11.5 mg/L 96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L; 72 Hr EC50 Pseudokirchneriella subcapitata: 12.5 mg/L [static]

SECTION 13 - DISPOSAL CONSIDERATIONS

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

SECTION 14 - TRANSPORT INFORMATION

This material is classified for transport as follows:

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	UN1263, PAINT	1263	II	3
IATA	UN1263, PAINT	1263	II	3
IMDG	UN1263, PAINT	1263	II	3

SECTION 15 - REGULATORY INFORMATION

Additional regulatory listings, where applicable.

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): WARNING!

This product contains the following chemicals which are listed by the State of California as carcinogenic or a reproductive toxin:

- 108-88-3 Toluene Carcinogen, Carcinogen
- 64-17-5 Ethyl alcohol Carcinogen, Carcinogen
- 108-10-1 2-Pentanone, 4-methyl- Carcinogen

This product contains the following substances subject to the reporting requirements of Section 313 of Title II of the Superfund Amendments and Reauthorization Act of 1986 and CFR Part 40

- 108-88-3 Toluene
- 108-10-1 2-Pentanone, 4-methyl-

<u>Country</u>	<u>Regulation</u>	<u>All Components Listed</u>
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EU Risk Phrases

R10: Flammable

Safety Phrase

S16: Keep away from sources of ignition - No smoking

SECTION 16 - OTHER INFORMATION

Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	1
PERSONAL PROTECTION	I

HMIS & NFPA Hazard Rating

Legend

* = Chronic Health Hazard

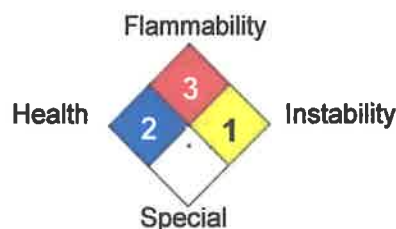
0 = INSIGNIFICANT

1 = SLIGHT

2 = MODERATE

3 = HIGH

National Fire Protection Association (NFPA)



The information contained on this SDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

Reviewer Revision

Date Prepared: 8/12/2015