



SAFETY DATA SHEET

Issuing Date: 28-Feb-2012

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Revision Number: 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Code: AD2298

Product Name: EPOXY CURING AGENT FOR
MIL-PRF-23377K TYPE I/II CLASS C2

Hentzen Coatings, Inc.
6937 West Mill Road, Milwaukee, WI 53218-1225
Recommended use of the chemical and restrictions on use

Company Phone Number: 1-414-353-4200
Emergency telephone number ChemTrec 1-800-424-9300
Industrial paint (Paint or Paint-Related), Restricted to
professional users

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Flammable Liquids	Category 2

Label Elements

Emergency Overview

DANGER

Hazard Statements

harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Highly flammable liquid and vapor



Appearance Opaque

Physical state Liquid

Odor Solvent

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Contaminated work clothing should not be allowed out of the workplace
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/Bond container and receiving equipment

Use explosion-proof electrical/ ventilating/ lighting/ equipment
Use only non-sparking tools
Take precautionary measures against static discharge

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
If skin irritation or rash occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

- May be harmful if swallowed
- May be harmful in contact with skin
- Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

There are no known carcinogenic chemicals in this product

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Chemical Name	CAS No	Weight-%	ACGIH	OSHA
METHYL AMYL KETONE	110-43-0	10% - 20%	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m ³
BENZYL ALCOHOL	100-51-6	5% - 10%	N/A	N/A
TRIETHYLENETETRAMINE(TETA)	112-24-3	1% - 5%	N/A	N/A

4. FIRST AID MEASURES

First Aid Measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Eye Contact	Immediately flush eyes with water for at least 15 minutes. Get medical attention. If easy to do, remove contact lenses. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with soap and plenty of water.
Inhalation	If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Consult a physician if necessary.
Ingestion	Do NOT induce vomiting.
Self-protection of the first aider	Remove all sources of ignition.
Most important symptoms and effects, both acute and delayed	

Most Important Symptoms and Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to physician May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media No information available.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes. May cause sensitization by inhalation and skin contact. Flammable.

Explosion Data

Sensitivity to Mechanical Impact no data available.

Sensitivity to Static Discharge Yes.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Evacuate personnel to safe areas. Ensure adequate ventilation. Remove all sources of ignition. Use personal protective equipment as required. Avoid breathing vapors or mists. Ventilate the area.

Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Vapors are heavier than air, spread along floors and form explosive mixtures with air.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers. Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use explosion-proof electrical (ventilation and lighting) equipment. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). To dissipate static electricity during transfer, ground drum and connect to receiving container with bonding strap. Use only non-sparking tools.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat, sparks and flame. Keep containers tightly closed in a cool, well-ventilated place.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH	OSHA	NIOSH IDLH
TERTIARY BUTYL ACETATE 540-88-5	STEL: 150 ppm TWA: 50 ppm	TWA: 200 ppm TWA: 950 mg/m ³	IDLH: 1500 ppm TWA: 200 ppm TWA: 950 mg/m ³
METHYL AMYL KETONE 110-43-0	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 465 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Exposure controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Use personal protective equipment as required.

Skin and Body Protection Chemical resistant apron.

Respiratory Protection 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 Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid	Appearance	Opaque
Odor	Solvent.	Odor Threshold	No data available
pH	No data available	Flash Point	40 °F / 4 °C
Decomposition temperature	No data available	Boiling Point	208 °F / 98 °C
Melting Point / Melting Range	No data available	Freezing Point	No data available
Vapor Pressure @20°C (kPa)	No data available	Partition coefficient:	No data available
Vapor Density	No data available	Density	No data available
Bulk density	No data available	Specific Gravity	0.93
Evaporation Rate	No data available	Water solubility	No data available
Dynamic viscosity	No data available	Weight per Gallon (lbs/gal):	7.73
		Flammability Limits in Air	
		Upper	3.39 %
		Lower	0.57 %

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	The product has not been tested
Inhalation	There is no data for this product.
Eye Contact	There is no data for this product.
Skin Contact	There is no data for this product.
Ingestion	There is no data for this product.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
TERTIARY BUTYL ACETATE 540-88-5	= 4100 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 13300 mg/m ³ (Rat) 4 h
METHYL AMYL KETONE 110-43-0	= 1600 mg/kg (Rat)	= 12.6 mL/kg (Rabbit)	2000 - 4000 ppm (Rat) 6 h
BENZYL ALCOHOL 100-51-6	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 8.8 mg/L (Rat) 4 h
TRIETHYLENETETRAMINE(TETA) 112-24-3	= 2500 mg/kg (Rat)	= 550 mg/kg (Rabbit)	N/A

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
MUTAGENIC EFFECTS	No information available.
Carcinogenicity	No information available.
Legend:	
Reproductive Toxicity	No information available.
Specific target organ systemic toxicity (single exposure)	No information available.
Specific target organ systemic toxicity (repeated exposure)	No information available.
Chronic Toxicity	Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.
Target Organ Effects	Central nervous system (CNS), Eyes, Peripheral Nervous System (PNS), Respiratory system, Skin.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	2215 mg/kg
ATEmix (dermal)	2602 mg/kg

ATEmix (inhalation-dust/mist) 3.3 mg/l
Oral LD50 4037 mg/kg (rat) Estimated
Dermal LD50 4367 mg/kg (rat) Estimated

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates
TERTIARY BUTYL ACETATE 540-88-5	N/A	296 - 362: 96 h Pimephales promelas mg/L LC50 flow-through	N/A
METHYL AMYL KETONE 110-43-0	N/A	126 - 137: 96 h Pimephales promelas mg/L LC50 flow-through	N/A
BENZYL ALCOHOL 100-51-6	N/A	10: 96 h Lepomis macrochirus mg/L LC50 static 460: 96 h Pimephales promelas mg/L LC50 static	23: 48 h water flea mg/L EC50
TRIETHYLENETETRAMINE(TETA) 112-24-3	2.5: 72 h Desmodesmus subspicatus mg/L EC50 20: 72 h Pseudokirchneriella subcapitata mg/L EC50 3.7: 96 h Pseudokirchneriella subcapitata mg/L EC50	495: 96 h Pimephales promelas mg/L LC50 570: 96 h Poecilia reticulata mg/L LC50 semi-static	31.1: 48 h Daphnia magna mg/L EC50

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
METHYL AMYL KETONE 110-43-0	1.98
BENZYL ALCOHOL 100-51-6	1.1
TRIETHYLENETETRAMINE(TETA) 112-24-3	-1.4

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

US EPA Waste Number D001

14. TRANSPORT INFORMATION

DOT

UN-No UN1263
Proper shipping name Paint
Hazard class 3
Packing Group II
Special Provisions 149, B52, IB2, T4, TP1, TP8, TP28
Description UN1263, Paint, 3, II, RQ
Emergency Response Guide 128

Number

TDG

UN-No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Description	UN1263, Paint, 3, II

MEX

UN-No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Description	UN1263, Paint, 3, II

ICAO

UN-No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Special Provisions	A3, A72
Description	UN1263, Paint, 3, II

IATA

UN-No	UN1263
Hazard class	3
Packing Group	II
ERG Code	3L
Special Provisions	A3, A72, A192

IMDG/IMO

UN-No	UN1263
Hazard class	3
Packing Group	II
EmS-No	F-E, S-E
Special Provisions	163, 367

RID

UN-No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Classification Code	F1
Description	UN1263, Paint, 3, II

ADR/RID

UN-No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
Classification Code	F1
Tunnel restriction code	(D/E)
Special Provisions	163, 640C, 650, 367
Description	UN1263, Paint, 3, II, (D/E)
ADR/RID-Labels	3

ADN

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 (LQ)	5 L
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

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

CAA (Clean Air Act)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

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
TERTIARY BUTYL ACETATE	N/A	N/A	N/A	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 (reportable quantity)
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TERTIARY BUTYL ACETATE	5000 lb	N/A	RQ 5000 lb final RQ RQ 2270 kg final RQ
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State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
TERTIARY BUTYL ACETATE	X	X	X	N/A	X
METHYL AMYL KETONE	X	X	X	N/A	X
TRIETHYLENETETRAMINE (TETA)	X	X	X	N/A	N/A

International Regulations

Mexico - Grade

Serious risk, Grade 3

Chemical Name	Carcinogenic Status	Exposure Limits
TERTIARY BUTYL ACETATE	N/A	Mexico: TWA 200 ppm Mexico: TWA 950 mg/m ³ Mexico: STEL 250 ppm Mexico: STEL 1190 mg/m ³
METHYL AMYL KETONE	N/A	Mexico: TWA 50 ppm Mexico: TWA 235 mg/m ³ Mexico: STEL 100 ppm Mexico: STEL 465 mg/m ³

16. OTHER INFORMATION

NFPA

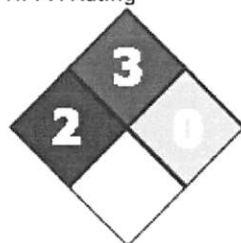
Health Hazard 2

Flammability 3

Instability 0

Physical and Chemical Hazards -

NFPA Rating



HMIS

Health Hazard 1 * Flammability 3

Physical Hazard 0 Personal protection X

Chronic Hazard Star Legend

* Chronic Health Hazard

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Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance 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 materials or in any process, unless specified in the text.

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