

SAFETY DATA SHEET

Issuing Date: 28-Feb-2012 Revision Date: 15-Aug-2013 Revision Number: 1

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

Product Code: 16709CEH Product Name: EPOXY HARDENER, MIL-PRF-23377K TYPE

I/II, CLASS C1,N

Hentzen Coatings, Inc.

Company Phone Number: 1-414-353-4200
6937 West Mill Road, Milwaukee, WI 53218-1225

Emergency telephone number ChemTrec 1-800-424-9300

Recommended use of the chemical and restrictions on use 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 - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Carcinogenicity	Category 1A
Flammable Liquids	Category 2

Label Elements

Emergency Overview

DANGER

Hazard Statements

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



Appearance Clear Physical state Liquid Odor Solvent

Revision Date: 15-Aug-2013

Precautionary Statements - Prevention

Obtain special instructions before use

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

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

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

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

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

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store in a well-ventilated place. Keep cool

Store in accordance with local regulations

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains a known or suspected carcinogen

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	30% - 40%	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m ³
ISOPROPYL ALCOHOL	67-63-0	10% - 20%	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 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

Show this safety data sheet to the doctor in attendance. If symptoms persist, call a **General advice**

physician.

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

Revision Date: 15-Aug-2013

physician.

Immediate medical attention is not required. Wash off immediately with soap and plenty of **Skin Contact**

water while removing all contaminated clothes and shoes. If skin irritation persists, call a

physician.

If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with Inhalation

> skin. Use barrier to give mouth-to-mouth resuscitation. Consult a physician if necessary. Remove to fresh air. Immediate medical attention is not required. Move to fresh air in case

of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion Do NOT induce vomiting. Drink plenty of water. If symptoms persist, call a physician. Rinse

mouth. Clean mouth with water and afterwards drink plenty of water. Never give anything by

mouth to an unconscious person. Consult a physician if necessary.

Self-protection of the first aider Remove all sources of ignition. Use personal protective equipment as required.

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

May cause sensitization of susceptible persons. Treat symptomatically. Notes to physician

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. Keep people away from and

Revision Date: 15-Aug-2013

upwind of spill/leak. 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). Use with local exhaust ventilation. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe vapor or mist. 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

containers tightly closed in a cool, well-ventilated place. Keep away from heat, sparks and

flame.

Incompatible Products None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH	OSHA	NIOSH IDLH
METHYL AMYL KETONE	TWA: 50 ppm	TWA: 100 ppm	IDLH: 800 ppm
110-43-0		TWA: 465 mg/m ³	TWA: 100 ppm
			TWA: 465 mg/m ³
ISOPROPYL ALCOHOL	STEL: 400 ppm	TWA: 400 ppm	IDLH: 2000 ppm
67-63-0	TWA: 200 ppm	TWA: 980 mg/m ³	TWA: 400 ppm
			TWA: 980 mg/m ³
			STEL: 500 ppm
			STEL: 1225 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

Revision Date: 15-Aug-2013

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 Clear

Solvent. Odor Threshold Odor No data available 53 °F / 12 °C Hq No data available **Flash Point** 177 °F / 81 °C **Decomposition temperature** No data available **Boiling Point** Melting Point / Melting Range No data available No data available **Freezing Point** Vapor Pressure @20°C (kPa) No data available Partition coefficient: No data available Density **Vapor Density** No data available No data available

Bulk density No data available Specific Gravity 0.9

Evaporation Rate No data available Water solubility No data available

Dynamic viscosity No data available **Weight per Gallon (lbs/gal):** 7.48

Flammability Limits in Air

Upper 4.68 % Lower 0.7 %

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

Revision Date: 15-Aug-2013

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
METHYL AMYL KETONE 110-43-0	1600 mg/kg (Rat)	12.6 mL/kg(Rabbit)	2000 ppm (Rat) 4 h
ISOPROPYL ALCOHOL 67-63-0	1870 mg/kg (Rat)	4059 mg/kg (Rabbit)	72600 mg/m³(Rat)4 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.

<u>Carcinogenicity</u> The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
ISOPROPYL ALCOHOL	N/A	Group 1	N/A	X
67-63-0		Group 3		

Legend:

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive Toxicity
Specific target organ systemic
toxicity (single exposure)
Specific target organ systemic

No information available. No information available.

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) 1614 mg/kg
ATEmix (dermal) 5111 mg/kg
ATEmix (inhalation-dust/mist) 2 mg/l

Oral LD50 3851 mg/kg (rat) Estimated
Dermal LD50 18448 mg/kg (rat) Estimated

Inhalation LC50 378323 mg/l (mist) (dust) mg/m³ Estimated

Inhalation LC50

Revision Date: 15-Aug-2013

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates
METHYL AMYL KETONE 110-43-0	N/A	126 - 137: 96 h Pimephales promelas mg/L LC50 flow-through	N/A
ISOPROPYL ALCOHOL 67-63-0	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 1400000: 96 h Lepomis macrochirus µg/L LC50 11130: 96 h Pimephales promelas mg/L LC50 static	13299: 48 h Daphnia magna mg/L EC50
BENZYL ALCOHOL 100-51-6	N/A	460: 96 h Pimephales promelas mg/L LC50 static 10: 96 h Lepomis macrochirus 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
ISOPROPYL ALCOHOL 67-63-0	0.05
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

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

261).

US EPA Waste Number D001

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
ISOPROPYL ALCOHOL	Toxic
67-63-0	Ignitable

14. TRANSPORT INFORMATION

Revision Date: 15-Aug-2013

DOT

UN-No UN1263 Proper shipping name Paint **Hazard class** 3 **Packing Group** Ш

Special Provisions 149, B52, IB2, T4, TP1, TP8, TP28

Description UN1263, Paint, 3, II

Emergency Response Guide 128

Number

TDG

UN-No UN1263 Proper shipping name Paint **Hazard class** 3 **Packing Group**

Description UN1263, Paint, 3, II

MEX

UN-No UN1263 Proper shipping name Paint **Hazard class** 3 **Packing Group**

Description UN1263, Paint, 3, II

ICAO

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

Description UN1263, Paint, 3, II

ICAO

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

Description UN1263, Paint, 3, II

IMDG/IMO

UN1263 UN-No Proper shipping name Paint **Hazard class** 3 **Packing Group** Ш **EmS-No** F-E, S-E **Special Provisions** 163

UN1263, Paint, 3, II Description

RID

ŪN-No UN1263 Proper shipping name Paint **Hazard class Packing Group** Ш **Classification Code** F1

Revision Date: 15-Aug-2013

Description UN1263, Paint, 3, II

ADR/RID

UN-NoUN1263Proper shipping namePaintHazard class3Packing GroupIIClassification CodeF1Tunnel restriction code(D/E)

Special Provisions 163, 640C, 650

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

Limited Quantity (LQ) 5 L Ventilation VE01

15. REGULATORY INFORMATION

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

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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	SARA 313 - Threshold Values %
ISOPROPYL ALCOHOL	67-63-0	1.0

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

Revision Date: 15-Aug-2013

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 does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

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
METHYL AMYL KETONE	Χ	X	X	N/A	X
ISOPROPYL ALCOHOL	Χ	X	X	N/A	X
TRIETHYLENETETRAMINE (TETA)	Х	Х	Х	N/A	N/A

International Regulations

Mexico - Grade

Serious risk, Grade 3

Chemical Name	Carcinogenic Status	Exposure Limits
METHYL AMYL KETONE	N/A	Mexico: TWA 50 ppm Mexico: TWA 235 mg/m³ Mexico: STEL 100 ppm Mexico: STEL 465 mg/m³
ISOPROPYL ALCOHOL	N/A	Mexico: TWA 400 ppm Mexico: TWA 980 mg/m³ Mexico: STEL 500 ppm Mexico: STEL 1225 mg/m³

16. OTHER INFORMATION				
NFPA	Health Hazard 2	Flammability 3	Instability 0	Physical and Chemical Hazards -

40 OTHER INCORMATION

Revision Date: 15-Aug-2013



HMIS Health Hazard 1 * Flammability 3 Physical Hazard 0 Personal protection X

Chronic Hazard Star Legend * Chronic Health Hazard

Issuing Date:28-Feb-2012Revision Date:15-Aug-2013

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. 18709CEH

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