Material Safety Data Sheet

Issuing Date: 22-Dec-2011 **Revision Date:** 19-Sep-2013 **Version:** 2.5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 16959AEF-LVOC

Product Name: 16081 GRAY EPOXZEN, MIL-PRF-22750G, PART A,TY II, CL H, GR A

Hentzen Coatings, Inc.
6937 West Mill Road, Milwaukee, WI 53218-1225
Company Phone Number: 1-414-353-4200
Emergency Telephone: ChemTrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

May be harmful if swallowed, inhaled, or absorbed through skin
May produce an allergic reaction
May cause skin irritation and/or dermatitis
Harmful by inhalation
May cause central nervous system depression
EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE
Vapors may be irritating to eyes, nose, throat, and lungs

Potential Health Effects

Principle Routes of Exposure Inhalation, Skin Contact, Eye Contact

Acute Toxicity

Eyes Prolonged contact may result in chemical burns or blindness. Irritating to eyes.

Skin May be harmful in contact with skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Irritating to skin. May cause inflammation.

Inhalation May be harmful if inhaled. May cause irritation of respiratory tract. Free formaldehdye will be liberated during the curing process that occurs in the oven. Proper exhaust ventilation of the ovens is necessary to control workplace exposures.

Ingestion May be harmful if swallowed. May cause additional affects as listed under "Inhalation". Ingestion may cause irritation to mucous membranes.

Chronic Toxicity Prolonged or repeated exposure increases the risk. Possible risks of irreversible effects. Avoid repeated exposure.

Aggravated Medical Conditions Allergies. Skin disorders. Respiratory disorders. Central nervous system. Preexisting eye disorders. Peripheral Nervous System (PNS). Lungs.

Interactions with Other Chemicals Irritants. Sensitizers. Use of alcoholic beverages may enhance toxic effects.

Environmental hazard Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains a known or suspected carcinogen

This product contains substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990. See Section 15 for list of HAPS.

Hazardous Components

Chemical Name	CAS-No	Weight	ACGIH TLV	OSHA PEL
METHYL ACETATE	79-20-9	20% - 30%	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 610 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 760 mg/m³
BARIUM SULFATE	7727-43-7	20% - 30%	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	98-56-6	5% - 10%	TWA: 2.5 mg/m³ F	TWA: 2.5 mg/m³ F (vacated) TWA: 2.5 mg/m³
METHYL AMYL KETONE	110-43-0	5% - 10%	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 465 mg/m³
TITANIUM DIOXIDE	13463-67-7	0% - 5%	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust
BUTYL ACETATE	123-86-4	0% - 5%	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³ (vacated) TWA: 150 ppm (vacated) TWA: 710 mg/m³ (vacated) STEL: 200 ppm (vacated) STEL: 950 mg/m³
CARBON BLACK	1333-86-4	0% - 5%	TWA: 3.5 mg/m³	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³
XYLENE(PURE)	1330-20-7	0% - 5%	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m³

4. FIRST AID MEASURES

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

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately. If symptoms persist, call a physician.

Skin Contact Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician. Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Inhalation Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Move to fresh air. If not breathing, give artificial respiration. 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. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately. Clean mouth with water and afterwards drink plenty of water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Flammable Properties HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames
Extremely flammable liquid and vapor
Flammable Liquid

Flash Point 14 °F / -10 °C

Flammability Limits in Air
Upper 5.27 %
Lower 0.89 %

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

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge Yes.

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. Extremely flammable.

Protective Equipment and Precautions for Firefighters Wear self-contained breathing apparatus and protective suit

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

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Avoid breathing vapors or mists. Ventilate the area.

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.

Methods for Containment Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.

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

7. HANDLING AND STORAGE

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 only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Do not breathe vapors or spray mist. Use bonding and grounding when transferring materials. Use non-sparking tools and equipment.

Technical Measures/Storage Conditions

Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat and sources of ignition. Keep containers tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL
METHYL ACETATE	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m³ (vacated) TWA: 200 ppm (vacated) TWA: 610 mg/m³ (vacated) STEL: 250 ppm (vacated) STEL: 760 mg/m³
BARIUM SULFATE	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	TWA: 2.5 mg/m³ F	TWA: 2.5 mg/m³ F (vacated) TWA: 2.5 mg/m³
METHYL AMYL KETONE	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 465 mg/m³
TITANIUM DIOXIDE	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust
BUTYL ACETATE	STEL: 200 ppm TWA: 150 ppm	TWA: 150 ppm TWA: 710 mg/m³ (vacated) TWA: 150 ppm (vacated) TWA: 710 mg/m³ (vacated) STEL: 200 ppm (vacated) STEL: 950 mg/m³
CARBON BLACK	TWA: 3.5 mg/m³	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³
XYLENE(PURE)	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m³

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust). However it is the duty of the user to verify this and follow given exposure limits at the workplace. Keep away from fire, sparks and heated surfaces.

Personal Protective Equipment

Eye/Face Protection

Tightly fitting safety goggles. Face-shield.

Skin and Body Protection

Solvent-resistant gloves. Handle in accordance with good industrial hygiene and safety practice. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Respiratory Protection

Maintain adequate ventilation. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C	Liquid	**Appearance**	Opaque
Odor	Solvent.	**Flash Point**	14 °F / -10 °C
Boiling Point	133 °F / 56 °C	**Specific Gravity**	1.32
Weight per Gallon (lbs/gal):	10.99		
Flammability Limits in Air			
Upper	5.27 %		
Lower	0.89 %		

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions.

Incompatible Products Strong oxidizing agents.

Conditions to Avoid None known based on information supplied.

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2). Thermal decomposition can lead to release of irritating gases and vapors. Decomposition of Benzene 1-chloro4-(trifluoromethyl) can produce Cl and Fl gases. Carbon monoxide (CO), carbon dioxide (CO_2). Thermal decomposition can lead to release of irritating gases and vapors. Free formaldehyde.

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Excessive inhalation of crystalline silica may cause lung damage in the form of silicosis, which is progressive and sometimes fatal. n-butyl alcohol has been shown to affect the auditory nerve and possibly a loss of hearing. Long-term repeated exposure to Xylene may result in hearing loss.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
METHYL ACETATE	5000 mg/kg (Rat)	2000 mg/kg (Rat) 5000 mg/kg (Rabbit)	16000 ppm (Rat) 4 h
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	13 g/kg (Rat)	2706 mg/kg (Rabbit)	33 mg/L (Rat) 4 h
METHYL AMYL KETONE	1670 mg/kg (Rat)	12600 µL/kg (Rabbit)	-
TITANIUM DIOXIDE	10000 mg/kg (Rat)	-	-
BUTYL ACETATE	10768 mg/kg (Rat)	17600 mg/kg (Rabbit)	390 ppm (Rat) 4 h
CARBON BLACK	15400 mg/kg (Rat)	3 g/kg (Rabbit)	-
XYLENE(PURE)	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	47635 mg/L (Rat) 4 h 5000 ppm (Rat) 4 h

Chronic Toxicity

Product Information

Excessive inhalation of crystalline silica may cause lung damage in the form of silicosis, which is progressive and sometimes fatal. n-butyl alcohol has been shown to affect the auditory nerve and possibly a loss of hearing. Long-term repeated exposure to Xylene may result in hearing loss. Prolonged or repeated exposure increases the risk. Possible risks of irreversible effects. Avoid repeated exposure.

Carcinogenicity

This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Chemical Name	IARC	ACGIH	NTP	OSHA
TITANIUM DIOXIDE	Group 2B	-	-	X
CARBON BLACK	Group 2B	-	-	X
XYLENE(PURE)	Group 3	-	-	-

Legend:

IARC: (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
OSHA: (Occupational Safety & Health Administration)
X - Present

Target Organ Effects

Central nervous system (CNS), Eyes, Lungs, Peripheral Nervous System (PNS), Respiratory system, Skin.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
METHYL ACETATE	120: 72 h Desmodesmus subspicatus mg/L EC50	295-348: 96 h Pimephales promelas mg/L LC50 flow-through 250-350: 96 h Brachydanio rerio mg/L LC50 static	-	1026.7: 48 h Daphnia magna mg/L EC50
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	-	11.5-15.8: 48 h Lepomis macrochirus mg/L LC50 static	-	3.68: 48 h Daphnia magna mg/L EC50
METHYL AMYL KETONE	-	126-137: 96 h Pimephales promelas mg/L LC50 flow-through	-	-
BUTYL ACETATE	674.7: 72 h Desmodesmus subspicatus mg/L EC50	17-19: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Lepomis macrochirus mg/L LC50 static 62: 96 h Leuciscus idus mg/L LC50 static	-	72.8: 24 h Daphnia magna mg/L EC50
CARBON BLACK	-	-	-	5600: 24 h Daphnia magna mg/L EC50

XYLENE(PURE)	-	13.4: 96 h Pimephales promelas mg/L LC50 flow-through 2.661-4.093: 96 h Oncorhynchus mykiss mg/L LC50 static 13.5-17.3: 96 h Oncorhynchus mykiss mg/L LC50 13.1-16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through 19: 96 h Lepomis macrochirus mg/L LC50 7.711-9.591: 96 h Lepomis macrochirus mg/L LC50 static 23.53-29.97: 96 h Pimephales promelas mg/L LC50 static 780: 96 h Cyprinus carpio mg/L LC50 semi-static 780: 96 h Cyprinus carpio mg/L LC50 30.26-40.75: 96 h Poecilia reticulata mg/L LC50 static	-	3.82: 48 h water flea mg/L EC50 0.6: 48 h Gammarus lacustris mg/L LC50

13. DISPOSAL CONSIDERATIONS

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

US EPA Waste Number D001
U031 U122 U239

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
METHYL ACETATE	Toxic Ignitable
BARIUM SULFATE	Toxic soluble
BUTYL ACETATE	Toxic
XYLENE(PURE)	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

Proper shipping name Paint
Hazard class 3
UN/ID No UN1263
Packing Group II
Description UN1263, Paint, 3, II
Emergency Response Guide Number 128

TDG

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

MEX

Proper shipping name Paint
Hazard class 3

UN/ID No	UN1263
Packing Group	II
Description	UN1263, Paint, 3, II

ICAO

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

ICAO/IATA

UN/ID No	UN1263
Proper shipping name	Paint
Hazard class	3
Packing Group	II
ERG Code	3L
Description	UN1263, Paint, 3, II

IMDG/IMO

Proper shipping name	Paint
Hazard class	3
UN/ID No	UN1263
Packing Group	II
EmS No.	F-E, S-E
Description	UN1263, Paint, 3, II

RID

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

ADR/RID

Proper shipping name	Paint
Hazard class	3
UN/ID No	UN1263
Packing Group	II
Classification Code	F1
Description	UN1263, Paint, 3, II, (D/E)
ADR/RID-Labels	3

ADN

Proper shipping name	Paint
Hazard class	3
UN/ID No	UN1263
Packing Group	II
Classification Code	F1
Special Provisions	163, 640C, 650
Description	UN1263, Paint, 3, II
Limited quantity	5 L
Ventilation	VE01

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. 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	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

Chemical Name	CAS-No	Weight	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
XYLENE(PURE)	1330-20-7	0.10914	Present	Group I	-	-

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
BUTYL ACETATE	5000 lb	-	-	X
XYLENE(PURE)	100 lb	-	-	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
BUTYL ACETATE	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
XYLENE(PURE)	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
CARBON BLACK	1333-86-4	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
METHYL ACETATE	X	X	X	-	X
BARIUM SULFATE	X	X	X	-	X
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	-	X	-	-	X
METHYL AMYL KETONE	X	X	X	-	X
TITANIUM DIOXIDE	X	X	X	-	X
BUTYL ACETATE	X	X	X	-	X
CARBON BLACK	X	X	X	X	X
BUTYL ALCOHOL	X	X	X	-	X
XYLENE(PURE)	X	X	X	X	X

International Regulations

Mexico - Grade Serious risk, Grade 3

Chemical Name	Carcinogen Status	Exposure Limits
METHYL ACETATE	-	Mexico: TWA 200 ppm Mexico: TWA 610 mg/m³ Mexico: STEL 250 ppm Mexico: STEL 760 mg/m³
BARIUM SULFATE	-	Mexico: TWA 0.5 mg/m³
METHYL AMYL KETONE	-	Mexico: TWA 50 ppm Mexico: TWA 235 mg/m³ Mexico: STEL 100 ppm Mexico: STEL 465 mg/m³
TITANIUM DIOXIDE	-	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
BUTYL ACETATE	-	Mexico: TWA 150 ppm Mexico: TWA 710 mg/m³ Mexico: STEL 200 ppm Mexico: STEL 950 mg/m³
CARBON BLACK	-	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³
XYLENE(PURE)	-	Mexico: TWA 100 ppm Mexico: TWA 435 mg/m³ Mexico: STEL 150 ppm Mexico: STEL 655 mg/m³

16. OTHER INFORMATION

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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