SAFETY DATA SHEET

Issuing Date: 22-Dec-2011 **Revision Date:** 23-Jan-2018

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

Product Code: 16678AEF-LVOC

Product Name: 36231 GRAY EPOXZEN, MIL-PRF-22750G(I),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 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)

Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 2

Label Elements

Emergency Overview

DANGER

Hazard Statements
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause genetic defects
May cause cancer
May cause drowsiness or dizziness
Highly flammable liquid and vapor

Appearance Opaque **Physical state** Liquid **Odor** Solvent

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

Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Use only outdoors or in a well-ventilated area
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
Keep cool
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
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
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
• Harmful to aquatic life

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 ACETATE	79-20-9	10% - 20%	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m³
BISPHENOL A/ EPICHLOROHYDRIN BASED EPOXY RESIN	25068-38-6	10% - 20%	N/A	N/A
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	98-56-6	10% - 20%	TWA: 2.5 mg/m³ F	TWA: 2.5 mg/m³ F
TITANIUM DIOXIDE	13463-67-7	5% - 10%	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust
METHYL AMYL KETONE	110-43-0	1% - 5%	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m³
BUTYL ACETATE	123-86-4	1% - 5%	STEL: 150 ppm TWA: 50 ppm	TWA: 150 ppm TWA: 710 mg/m³
CARBON BLACK	1333-86-4	0% - 1%	TWA: 3 mg/m³ inhalable particulate matter	TWA: 3.5 mg/m³
MINERAL SPIRITS/STODDARD SOLVENT	8052-41-3	0% - 1%	TWA: 100 ppm	TWA: 500 ppm TWA: 2900 mg/m³

4. FIRST AID MEASURES

First Aid Measures

General advice	Show this safety data sheet to the doctor in attendance. If symptoms persist, call a physician.
Eye Contact	If symptoms persist, call a physician. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. 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.
Skin Contact	Remove and wash contaminated clothing and gloves, including the inside, 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	Remove to fresh air. If symptoms persist, call a physician. Immediate medical attention is not required. Move to fresh air in case of accidental inhalation of vapors.
Ingestion	Do NOT induce vomiting. Drink plenty of water. Immediate medical attention is not required. 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

Notes to physician	Treat symptomatically. 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. Extremely flammable.

Explosion Data
Sensitivity to Mechanical Impact no data available.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment as required. Keep people away from and 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

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
METHYL ACETATE 79-20-9	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m³	IDLH: 3100 ppm TWA: 200 ppm TWA: 610 mg/m³ STEL: 250 ppm STEL: 760 mg/m³
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL) 98-56-6	TWA: 2.5 mg/m³ F	TWA: 2.5 mg/m³ F	IDLH: 250 mg/m³ F
CALCIUM CARBONATE 1317-65-3	N/A	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction	TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust	IDLH: 5000 mg/m³
METHYL AMYL KETONE 110-43-0	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m³	IDLH: 800 ppm TWA: 100 ppm TWA: 465 mg/m³
BUTYL ACETATE 123-86-4	STEL: 150 ppm TWA: 50 ppm	TWA: 150 ppm TWA: 710 mg/m³	IDLH: 1700 ppm TWA: 150 ppm TWA: 710 mg/m³ STEL: 200 ppm STEL: 950 mg/m³
CARBON BLACK 1333-86-4	TWA: 3 mg/m³ inhalable particulate matter	TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH

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**	14 °F / -10 °C
Decomposition temperature	No data available	**Boiling Point**	133 °F / 56 °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**	1.34
Evaporation Rate	No data available	**Water solubility**	No data available
Dynamic viscosity	No data available	**Weight per Gallon (lbs/gal):**	11.18
		Flammability Limits in Air	
		Upper	5.5 %
		Lower	0.84 %

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
Thermal decomposition can lead to release of irritating gases and vapors.

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
METHYL ACETATE 79-20-9	> 5 g/kg (Rat)	> 5 g/kg (Rabbit)	= 16000 ppm (Rat) 4 h
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL) 98-56-6	= 13 g/kg (Rat)	> 2 mL/kg (Rabbit)	= 33 mg/L (Rat) 4 h
TITANIUM DIOXIDE 13463-67-7	> 10000 mg/kg (Rat)	N/A	N/A
METHYL AMYL KETONE 110-43-0	= 1600 mg/kg (Rat)	= 12.6 mL/kg (Rabbit)	2000 - 4000 ppm (Rat) 6 h
BUTYL ACETATE 123-86-4	= 10768 mg/kg (Rat)	> 17600 mg/kg (Rabbit)	= 390 ppm (Rat) 4 h
CARBON BLACK 1333-86-4	> 15400 mg/kg (Rat)	N/A	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 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	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE 13463-67-7	N/A	Group 2B	N/A	X
CARBON BLACK 1333-86-4	A3	Group 2B	N/A	X

Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly 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 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 Prolonged or repeated exposure increases the risk. Avoid repeated exposure. Repeated contact may cause allergic reactions in very susceptible persons.
Target Organ Effects Central nervous system (CNS), Eyes, Lungs, 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) 6842 mg/kg
ATEmix (dermal) 5647 mg/kg
ATEmix (inhalation-dust/mist) 22.9 mg/l

	Quantities			Substances
BUTYL ACETATE	5000 lb	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)
BUTYL ACETATE	5000 lb	N/A	RQ 5000 lb final RQ RQ 2270 kg final RQ

State Regulations

California Proposition 65
This product contains the following Proposition 65 chemicals

Chemical Name	CAS No	California Proposition 65
TITANIUM DIOXIDE	13463-67-7	Carcinogen
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	N/A	X
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	N/A	X	N/A	N/A	X
CALCIUM CARBONATE	X	X	X	N/A	X
TITANIUM DIOXIDE	X	X	X	N/A	X
AMORPHOUS PRECIPITATED SILICA	X	X	X	N/A	N/A
METHYL AMYL KETONE	X	X	X	N/A	X
BUTYL ACETATE	X	X	X	N/A	X
CARBON BLACK	X	X	X	X	X

International Regulations

Mexico - Grade Serious risk, Grade 3

Chemical Name	Carcinogenic Status	Exposure Limits
METHYL ACETATE	N/A	Mexico: TWA 200 ppm Mexico: TWA 610 mg/m³ Mexico: STEL 250 ppm Mexico: STEL 760 mg/m³
BENZENE,1-CHLORO-4 (TRIFLUOROMETHYL)	N/A	Mexico: TWA 2.5 mg/m³
CALCIUM CARBONATE	N/A	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
TITANIUM DIOXIDE	N/A	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
METHYL AMYL KETONE	N/A	Mexico: TWA 50 ppm Mexico: TWA 235 mg/m³ Mexico: STEL 100 ppm Mexico: STEL 465 mg/m³
BUTYL ACETATE	N/A	Mexico: TWA 150 ppm Mexico: TWA 710 mg/m³ Mexico: STEL 200 ppm Mexico: STEL 950 mg/m³
CARBON BLACK	N/A	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³

16. OTHER INFORMATION

HENTZEN COATINGS, INC.

TECHNICAL BULLETIN

16678AEF-LVOC/16062CEH-LVOC
Two Component Gray Low Luster Epoxzen, Fed. Std. Color #36231
Per MIL-PRF-22750G, Type II, Class H, Grade A

PRODUCT DESCRIPTION

EPOXZEN is the trade name for Hentzen's epoxy coating. This product is a two component catalyzed system that will meet or exceed the performance of MIL-PRF-22750G, Type II, Class H, Grade A

HANDLING & STORAGE

The containers should be stored away from direct sunlight and heat. Freezing is not harmful if reheated gently to room temperature prior to use.

PHYSICAL CHARACTERISTICS

16678AEF-LVOC Gray Low Luster Epoxzen - Component A:	
Weight per Gallon:	11.24 lbs. ± .35
Weight Solids:	56.22% ± 1.0
Volume Solids:	43.28% ± 1.0
Viscosity:	60 - 65 KU's

16062CEH-LVOC Clear Epoxy Hardener - Component B:	
Weight per Gallon:	9.24 lbs. ± .25
Weight Solids:	45.04% ± 1.0
Volume Solids:	49.09% ± 1.0

Admixed Characteristics:	
Catalyzation Ratio:	3:1 by volume
Weight per Gallon:	10.74 lbs. ± .35
Weight Solids:	53.81% ± 1.0
Volume Solids:	44.13% ± 1.0
VOC:	1.80 maximum
Viscosity:	13 - 23" #4 Ford
Theoretical Coverage - sq. ft./gl. @ 1.0 mil dry film thickness:	707.9
Useable Pot Life:	Less than 70" #4 Ford Cup in 4 hours - not gelled in 8 hours
Gloss @ 60° Meter:	<5° @ 2.0 mils

Cure Schedule - Air Dry @ 77°F & 50% Relative Humidity:	
Dry to Touch:	<4 hours
Dry Hard:	<8 hours
Recoat Up To:	72 hours
Full Resistance Properties:	7 days

ENVIRONMENTAL REPORT

Volatile Content (Wt.%):	46.19
Organic Volatile Content (Wt.%):	9.68
Exempt Solvent Content (Wt.%):	36.51
Exempt Solvent Content (Vol.%):	41.36
VOC Minus Water:	1.80 max.

DIRECTIONS FOR USE

Component A should be thoroughly agitated prior to blending. After agitating Component A, mix 3 volumes of Component A to 1 volume of Component B and mix the two Components well. Allow the admixed product 30 minutes to induct prior to spraying. No further reduction is necessary. Mix only what you will use in 4 hours. Viscosity increase will occur when admixed.

PRECAUTIONS & SAFETY

- Do not apply at temperatures below 50°F.
- Read all container labels.
- Read Material Safety Data Sheet.

CLEAN-UP

Clean equipment immediately after use with 00212SST-1 Solvent Blend or equivalent.

November 03, 2011

6937 WEST MILL ROAD • MILWAUKEE, WI 53218-1225 • TELEPHONE 414-353-4200 • FAX 414-353-0286 • EMAIL coatings@hentzen.com

The information contained here is to our knowledge true and accurate but all suggestions are made without guarantee since conditions of use are beyond our control. Nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or use.