



# SAFETY DATA SHEET

Issuing Date: 22-Dec-2011

Revision Date: 24-Feb-2015

Revision Number: 1

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

Product Code: 08671GUZ-B33

Product Name: 34088 OLIVE DRAB VOHAP FREE  
ZENTHANE MIL-DTL-53039E, TYPE IX

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)

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 2
Flammable Liquids	Category 3

### Label Elements

### Emergency Overview

#### WARNING

#### Hazard Statements

Harmful if swallowed  
harmful if inhaled  
Suspected of causing cancer  
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  
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  
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

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
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**

- Harmful to aquatic life with long lasting effects

**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.

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 <sup>3</sup>
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE	28182-81-2	20% - 30%	N/A	N/A
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	68186-90-3	5% - 10%	TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr	TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr
BARIUM SULFATE	7727-43-7	5% - 10%	TWA: 5 mg/m <sup>3</sup> inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction
HEXAMETHYLENE DIISOCYANATE	822-06-0	0% - 1%	TWA: 0.005 ppm	N/A

**4. FIRST AID MEASURES**

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**First Aid Measures**

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	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.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water. Consult a physician if necessary. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
<b>Inhalation</b>	Consult a physician if necessary. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Asthma-like and/ or skin allergy-like symptoms.
<b>Ingestion</b>	Do NOT induce vomiting.
<b>Self-protection of the first aider</b>	Remove all sources of ignition.
<b>Most important symptoms and effects, both acute and delayed</b>	
<b>Most Important Symptoms and Effects</b>	No information available.
<b>Indication of any immediate medical attention and special treatment needed</b>	
<b>Notes to physician</b>	Treat symptomatically.

**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**

Flammable. Containers may explode when heated or if contaminated with water.

**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.

**Other information** DECONTAMINATION SOLUTION: Concentrated ammonia (3 - 8%), detergent (2%) and water (90 - 95%), a solution of Union Carbide's Tergitol TMN-10 (20%) and water (80%) or a solution of 50% isopropanol, 45% water, and 5% concentrated ammonia solution(% by weight).

**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** Decontaminate floor with decontamination solution letting stand for at least 15 minutes. Soak up with inert absorbent material.

**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. Protect from moisture.

**Incompatible Products** Water. Glycol ethers. Alcohols. Epoxies. Bases.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH	OSHA	NIOSH IDLH
METHYL AMYL KETONE 110-43-0	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m <sup>3</sup>	IDLH: 800 ppm TWA: 100 ppm TWA: 465 mg/m <sup>3</sup>
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT 68186-90-3	TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr	TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr	IDLH: 50 mg/m <sup>3</sup> Sb IDLH: 25 mg/m <sup>3</sup> Cr(III) TWA: 0.5 mg/m <sup>3</sup> Sb TWA: 0.5 mg/m <sup>3</sup> Cr
BARIUM SULFATE 7727-43-7	TWA: 5 mg/m <sup>3</sup> inhalable fraction, particulate matter containing no asbestos and <1% crystalline silica	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust
TITANIUM DIOXIDE 13463-67-7	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust	IDLH: 5000 mg/m <sup>3</sup>
IRON (III) OXIDE 1309-37-1	TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	IDLH: 2500 mg/m <sup>3</sup> Fe dust and fume TWA: 5 mg/m <sup>3</sup> Fe dust and fume

ORGANIC TIN COMPOUND 77-58-7	STEL: 0.2 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> Sn S*	TWA: 0.1 mg/m <sup>3</sup> Sn	IDLH: 25 mg/m <sup>3</sup> Sn TWA: 0.1 mg/m <sup>3</sup> except Cyhexatin Sn
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NIOSH IDLH: Immediately Dangerous to Life or Health

**Exposure controls**

**Engineering Measures**                      Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

**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**

<b>Physical state</b>	Liquid	<b>Appearance</b>	Opaque
<b>Odor</b>	Solvent.	<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available	<b>Flash Point</b>	100 °F / 38 °C
<b>Decomposition temperature</b>	No data available	<b>Boiling Point</b>	278 °F / 137 °C
<b>Melting Point / Melting Range</b>	No data available	<b>Freezing Point</b>	No data available
<b>Vapor Pressure @20°C (kPa)</b>	No data available	<b>Partition coefficient:</b>	No data available
<b>Vapor Density</b>	No data available	<b>Density</b>	No data available
<b>Bulk density</b>	No data available	<b>Specific Gravity</b>	1.06
<b>Evaporation Rate</b>	No data available	<b>Water solubility</b>	No data available
<b>Dynamic viscosity</b>	No data available	<b>Weight per Gallon (lbs/gal):</b>	8.85
		<b>Flammability Limits in Air</b>	
		<b>Upper</b>	2.88 %
		<b>Lower</b>	0.4 %

**10. STABILITY AND REACTIVITY**

**Reactivity**  
No data available

**Chemical stability**  
Stable under recommended storage conditions.

**Conditions to Avoid**  
Heat, flames and sparks.

**Incompatible Materials**  
Water. Glycol ethers. Alcohols. Epoxies. Bases.

**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
METHYL AMYL KETONE 110-43-0	1600 mg/kg ( Rat )	12.6 mL/kg ( Rabbit )	2000 ppm ( Rat ) 4 h
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT 68186-90-3	10000 mg/kg ( Rat )	N/A	N/A
TITANIUM DIOXIDE 13463-67-7	10000 mg/kg ( Rat )	N/A	N/A
IRON (III) OXIDE 1309-37-1	10000 mg/kg ( Rat )	N/A	N/A
ORGANIC TIN COMPOUND 77-58-7	45 mg/kg ( Rat )	630 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** 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
CHROME,NICKEL,ANTIMO NY TITANIUM DIOXIDE PIGMENT 68186-90-3	N/A	Group 3	N/A	N/A
TITANIUM DIOXIDE 13463-67-7	N/A	Group 2B	N/A	X
IRON (III) OXIDE 1309-37-1	N/A	Group 3	N/A	N/A

**Legend:**

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** May cause adverse liver effects.

**Target Organ Effects** Central nervous system (CNS), Central Vascular System (CVS), Eyes, Gastrointestinal tract (GI), Kidney, Liver, 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)** 1102 mg/kg  
**ATEmix (dermal)** 12638 mg/kg  
**ATEmix (inhalation-dust/mist)** 1.5 mg/l  
**Oral LD50** 7604 mg/kg (rat) Estimated  
**Dermal LD50** 34443 mg/kg (rat) Estimated  
**Inhalation LC50** 4639933 mg/l (mist) (dust) mg/m<sup>3</sup> Estimated  
**Inhalation LC50** ml/m<sup>3</sup> (vapor) Estimated

**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

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
METHYL AMYL KETONE 110-43-0	1.98

**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** U239 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
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT 68186-90-3	Toxic Corrosive Ignitable
BARIUM SULFATE 7727-43-7	Toxic soluble
ORGANIC TIN COMPOUND 77-58-7	Toxic

**14. TRANSPORT INFORMATION**

**DOT**

UN-No UN1263  
Proper shipping name Paint  
Hazard class 3  
Packing Group III  
Special Provisions B1, B52, IB3, T2, TP1, TP29  
Description UN1263, Paint, 3, III  
Emergency Response Guide Number 128

**TDG**

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

**MEX**

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

**ICAO**

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

**ICAO**

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

**IMDG/IMO**

UN-No UN1263  
Proper shipping name Paint  
Hazard class 3  
Packing Group III  
EmS-No F-E, S-E  
Special Provisions 163, 223, 955  
Description UN1263, Paint, 3, III

**RID**

UN-No UN1263  
Proper shipping name Paint  
Hazard class 3



**Packing Group** III  
**Classification Code** F1  
**Description** UN1263, Paint, 3, III

**ADR/RID**

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

**ADN**

**Proper shipping name** Paint  
**Hazard class** 3  
**Packing Group** III  
**Classification Code** F1  
**Special Provisions** 163, 640E, 650  
**Description** UN1263, Paint, 3, III  
**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 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 %
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	68186-90-3	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

**CAA (Clean Air Act)**

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants This product contains the following HAPs:

Chemical Name	CAS No	Hazardous air pollutants (HAPs) content
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	68186-90-3	Present

**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
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	N/A	X	N/A	N/A

**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 contains the following Proposition 65 chemicals

Chemical Name	CAS No	California Proposition 65
TITANIUM DIOXIDE	13463-67-7	Carcinogen

**U.S. State Right-to-Know Regulations**

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
METHYL AMYL KETONE	X	X	X	N/A	X
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	N/A	X	X	X	X
BARIUM SULFATE	X	X	X	N/A	X
TITANIUM DIOXIDE	X	X	X	N/A	X

**International Regulations**

**Mexico - Grade**

Moderate risk, Grade 2

Chemical Name	Carcinogenic Status	Exposure Limits
METHYL AMYL KETONE	N/A	Mexico: TWA 50 ppm Mexico: TWA 235 mg/m <sup>3</sup> Mexico: STEL 100 ppm Mexico: STEL 465 mg/m <sup>3</sup>
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	N/A	Mexico: TWA 0.5 mg/m <sup>3</sup>

TITANIUM DIOXIDE	N/A	Mexico: TWA 10 mg/m <sup>3</sup> Mexico: STEL 20 mg/m <sup>3</sup>
IRON (III) OXIDE	N/A	Mexico: TWA 5 mg/m <sup>3</sup> Mexico: STEL 10 mg/m <sup>3</sup>
ORGANIC TIN COMPOUND	N/A	Mexico: TWA 0.1 mg/m <sup>3</sup> Mexico: STEL 0.2 mg/m <sup>3</sup>

**16. OTHER INFORMATION**

**NFPA**                      Health Hazard 2              Flammability 2              Instability 0              Physical and Chemical Hazards -

NFPA Rating



**HMIS**                      Health Hazard 1 \*      Flammability 2              Physical Hazard 0      Personal protection X

*Chronic Hazard Star Legend*

*\* Chronic Health Hazard*

**Issuing Date:**                      22-Dec-2011  
**Revision Date:**                      24-Feb-2015  
**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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