



# Material Safety Data Sheet

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 08625GUZ-B33

Product Name: 34031 AIRCRAFT GREEN 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

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

Harmful by inhalation

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

May cause central nervous system depression

May be harmful if swallowed

Flammable liquid and vapor

### Potential Health Effects

#### Principle Routes of Exposure

Inhalation, Skin Contact, Eye Contact

#### Acute Toxicity

##### Eyes

Prolonged contact may result in chemical burns to the eyes. Blindness may occur.

##### Skin

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Severe skin irritant. Repeated or prolonged contact: Causes severe irritation and or burns. May cause irritation.

##### Inhalation

May cause allergic respiratory reaction. May be harmful if inhaled. May cause irritation of respiratory tract. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Exposure well above the exposure limits may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in the lungs). As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the TLV. These symptoms could be immediate or delayed up to several hours after exposure and could include chest tightness, wheezing, cough or asthmatic attack. Anesthetic. Isocyanates may cause acute irritation and/or sensitization of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition. Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Chronic overexposure to isocyanates has also been reported to cause lung damage, including decrease in lung function, which may be permanent.

##### Ingestion

Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration may cause pulmonary edema and pneumonitis. Ingestion may cause irritation to mucous membranes.

#### Chronic Toxicity

May cause adverse liver effects.

#### Aggravated Medical Conditions

Central nervous system. Gastrointestinal tract. Preexisting eye disorders. Liver disorders. Skin disorders. Respiratory disorders. Peripheral Nervous System (PNS).

#### Interactions with Other Chemicals

Use of alcoholic beverages may enhance toxic effects.

**Environmental hazard** See Section 12 for additional Ecological 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.

Hazardous ingredients

Chemical Name	CAS No	Weight-%	ACGIH	OSHA
METHYL AMYL KETONE	110-43-0	20% - 30%	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m <sup>3</sup>
MAGNESIUM-FERRITE PIGMENT	12068-86-9	0% - 5%	TWA: 1 mg/m <sup>3</sup> Fe	N/A
TITANIUM DIOXIDE	13463-67-7	0% - 5%	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust
ORGANIC TIN COMPOUND	77-58-7	0% - 5%	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

### 4. 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 is necessary. For severe exposure, remove clothing and use safety shower. Seek medical attention.
<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.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable properties</b>	Flammable liquid
<b>Flash Point</b>	100 °F / 38 °C
<b>Flammability Limits in Air</b>	
<b>Upper</b>	2.13 %
<b>Lower</b>	0.3 %
<b>Suitable Extinguishing Media</b>	Use: Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol-resistant foam.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	Yes.
<b>Specific hazards arising from the chemical</b>	Keep product and empty container away from heat and sources of ignition. Risk of ignition. Containers may explode when heated or if contaminated with water. Flammable.

**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

<b>NFPA</b>	<b>Health Hazard</b> 2	<b>Flammability</b> 2	<b>Stability</b> 0	<b>Physical and Chemical Hazards</b> -
<b>HMIS</b>	<b>Health Hazard</b> 1 *	<b>Flammability</b> 2	<b>Physical Hazard</b> 1	<b>Personal protection</b> X
* Chronic Health Hazard				

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	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.
<b>Environmental Precautions</b>	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.
<b>Methods for Containment</b>	Decontaminate floor with decontamination solution letting stand for at least 15 minutes. Soak up with inert absorbent material.
<b>Methods for Cleaning Up</b>	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.
<b>Other information</b>	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).

**7. HANDLING AND STORAGE**

<b>Advice on safe handling</b>	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.
<b>Storage Conditions</b>	Keep tightly closed in a dry and cool place. Keep in properly labeled containers. Keep away from heat, sparks and flame. Protect the container from moisture. If moisture enters the container, do not reseal, pressure can build-up and cause container to burst.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical Name	ACGIH	OSHA
METHYL AMYL KETONE	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m <sup>3</sup>
MAGNESIUM-FERRITE PIGMENT	TWA: 1 mg/m <sup>3</sup> Fe	-
TITANIUM DIOXIDE	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust
ORGANIC TIN COMPOUND	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

NIOSH IDLH: Immediately Dangerous to Life or Health

**Engineering Measures**

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Air sampling should be done to measure airborne concentrations of the monomer of Hexamethylene Diisocyanate (HDI), the HDI polyisocyanate and organic solvents. Good industrial hygiene practice dictates that when isocyanate-containing coatings are spray applied, some form of respiratory protection should be worn. During the spray application of these coatings, the use of a supplied-air respirator (either positive pressure or continuous flow type) is mandatory when one or more of the following conditions exist: the airborne isocyanate concentrations are not known; or the airborne isocyanate concentrations exceed ten times the exposure limits; or no airborne solvent concentration exceeds its odor threshold; or spraying is performed in a confined space. (See OSHA Confined Space Standard 29 CFR 1910.146.) A properly fitted air-purifying respirator (combination organic vapor and particulate), proven by test to be effective in isocyanate-containing spray paint environments, the airborne isocyanate concentrations are known to be below ten times the exposure limits; at least one solvent in the coating has a published odor threshold; and at least one airborne solvent concentration is lower than its TLV but higher than its odor threshold. The odor of the solvent will then alert the respirator wearer to any breakdown of the respirator filters. FOR NON-SPRAY OPERATIONS: the same precautions. a local exhaust hood should be used to remove fumes during the welding or cutting operation. a fresh air supplied respirator should be worn during welding or cutting. 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.

**Personal Protective Equipment**

**Eye/Face Protection**

Use personal protective equipment as required.

**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.

**Hygiene Measures**

Do not eat, drink or smoke when using this product. Provide regular cleaning of equipment, work area and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	Liquid	<b>Appearance</b>	Opaque
<b>Odor</b>	Solvent.	<b>Flash Point</b>	100 °F / 38 °C
<b>Boiling Point</b>	176 °F / 80 °C	<b>Specific Gravity</b>	1.00
<b>Weight per Gallon (lbs/gal):</b>	8.36		
<b>Flammability Limits in Air</b>			
<b>Upper</b>	2.13 %		
<b>Lower</b>	0.3 %		

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible Products</b>	Water, epoxy catalysts, alcohols, glycol ethers, bases, metal complexes, and other active materials.
<b>Conditions to Avoid</b>	Heat, flames and sparks.
<b>Hazardous Decomposition Products</b>	Thermal decomposition can lead to release of irritating gases and vapors.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute Toxicity**

**Product Information** The product has not been tested.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
METHYL AMYL KETONE	1600 mg/kg ( Rat )	12.6 mL/kg ( Rabbit )	2000 ppm ( Rat ) 4 h
TITANIUM DIOXIDE	10000 mg/kg ( Rat )	N/A	N/A
ORGANIC TIN COMPOUND	45 mg/kg ( Rat )	630 mg/kg ( Rabbit )	N/A

**Chronic Toxicity**

**Product Information** The product has not been tested. May cause adverse liver effects.

**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	N/A	N/A	X

**Legend:**

- IARC (International Agency for Research on Cancer)**
- Group 3 - Not Classifiable as to Carcinogenicity in Humans
- Group 2B - Possibly Carcinogenic to Humans
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)**
- X - Present

**Target Organ Effects** Central nervous system (CNS), Eyes, Gastrointestinal tract (GI), Liver, Peripheral Nervous System (PNS), Respiratory system, Skin.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to daphnia and other aquatic invertebrates
METHYL AMYL KETONE	N/A	126 - 137: 96 h Pimephales promelas mg/L LC50 flow-through	N/A	N/A

**13. DISPOSAL CONSIDERATIONS**

**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
ORGANIC TIN COMPOUND	Toxic

## 14. TRANSPORT INFORMATION

### DOT

Proper shipping name	Paint
Hazard class	3
UN-No	UN1263
Packing Group	III
Description	UN1263, Paint, 3, III
Emergency Response Guide Number	128

### TDG

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

### MEX

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

### ICAO

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

### ICAO IATA

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

### IMDG/IMO

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

### RID

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

Description UN1263, Paint, 3, III

**ADR/RID**

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

**ADN**

Proper shipping name Paint  
Hazard class 3  
UN-No UN1263  
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

**Legend**

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

**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 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 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

**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>
MAGNESIUM-FERRITE PIGMENT	N/A	Mexico: TWA 1 mg/m <sup>3</sup> Mexico: STEL 2 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>
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**

**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. 08625GUZ-B33

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