



# SAFETY DATA SHEET

Issuing Date: 22-Dec-2011

Revision Date: 22-May-2012

Revision Number: 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifier

**Product Code:** 08609TUZ-B33  
**Product Name:** TAN 686A, 33446 VOHAP FREE ZENTHANE, MIL-DTL-53039E, TYPE IX

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Coatings  
**Uses advised against** No information available

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer**  
Hentzen Coatings Incorporated  
6937 West Mill Road  
Milwaukee, Wisconsin, USA  
53218-1225

For further information, please contact:

**Contact Point** 001 414 353 4200  
**E-mail address** coatings@hentzen.com

### 1.4 Emergency telephone number

<b>Emergency telephone - §45 - (EC)1272/2008</b>	
<b>Europe</b>	<b>CHEMTREC (USA) 001 800 424 9300</b>

## 2. HAZARDS IDENTIFICATION

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

### 2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008

<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 4 - (H332)
<b>Flammable liquids</b>	Category 2 - (H225)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

### Symbol(s)

F - Highly flammable  
Xn - Harmful

### R-code(s)

F;R11 - Xn;R20/22

### 2.2 Label Elements

**Product identifier**



**Signal Word**  
DANGER

**Hazard Statements**

H332 - Harmful if inhaled  
H225 - Highly flammable liquid and vapor

**Precautionary Statements - EU (§28, 1272/2008)**

P370 + P378 - In case of fire: Use dry sodium carbonate to extinguish  
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**2.3. Other hazards**

No information available

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

Chemical Name	EC No	CAS No	Weight-%	Classification according to 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
METHYL AMYL KETONE	203-767-1	110-43-0	30%-40%	R10 Xn; R20/22	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Flam. Liq. 3 (H226)	no data available
HOMOPOLYMER OF HEXAMETHYLENE DIISOCYANATE	-	28182-81-2	10%-20%	-		no data available
TITANIUM DIOXIDE	236-675-5	13463-67-7	10%-20%	-		no data available
CHROMIC OXIDE	215-160-9	1308-38-9	0%-5%	PBT		no data available
ORGANIC TIN COMPOUND	201-039-8	77-58-7	0%-5%	-		no data available
TERTIARY BUTYL ACETATE	208-760-7	540-88-5	0%-5%	F; R11 R66	Flam. Liq. 2 (H225) (EUH066)	no data available
MINERAL SPIRITS/STODDARD SOLVENT	232-489-3	8052-41-3	0%-5%	Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R48/20-65	Muta. 1B (H340) Carc. 1B (H350) STOT RE 1 (H372) Asp. Tox. 1 (H304)	no data available
HEXAMETHYLENE DIISOCYANATE	212-485-8	822-06-0	0%-5%	T; R23 Xi; R36/37/38 R42/43	Acute Tox. 3 (H331) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) STOT SE 3 (H335)	no data available
XYLENE(PURE)	215-535-7	1330-20-7	0%-5%	R10 Xn; R20/21 Xi; R38	Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Flam. Liq. 3 (H226)	no data available
METHOXYPROPANOL ACETATE	203-603-9	108-65-6	0%-5%	R10	Flam. Liq. 3 (H226)	no data available

Full text of R-phrases: see section 16

## 4. FIRST AID MEASURES

### 4.1 Description of 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>Ingestion</b>	Do NOT induce vomiting
<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>Self-protection of the first aider</b>	Remove all sources of ignition

### 4.2 Most important symptoms and effects, both acute and delayed

**Most Important Symptoms and Effects** No information available

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

#### **Extinguishing Media Which Must Not Be Used For Safety Reasons**

No information available

### 5.2 Special hazards arising from the substance or mixture

#### **Special Hazard**

None in particular

### 5.3 Advice for fire-fighters

#### **Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

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

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).

### 6.2 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

**6.3 Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

**7. HANDLING AND STORAGE**

**7.1 Precautions for 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

**7.2 Conditions for safe storage, including any incompatibilities**

Keep tightly closed in a dry and cool place Keep in properly labeled containers Keep away from heat, sparks and flame Protect from moisture

**7.3 Specific end uses**

**Specific use(s)** Coatings

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure limits**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
METHYL AMYL KETONE 110-43-0	S* TWA 50 ppm TWA 238 mg/m <sup>3</sup> STEL 100 ppm STEL 475 mg/m <sup>3</sup>	STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup>	S* STEL: 100 ppm STEL: 474 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup>	TWA: 238 mg/m <sup>3</sup>
CHROMIC OXIDE 1308-38-9	TWA: 2 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
METHYL AMYL KETONE 110-43-0	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> Skin	STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> TWA: 50 ppm TWA: 238 mg/m <sup>3</sup>	TWA: 233 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup> STEL: 75 ppm STEL: 360 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> Skin
CHROMIC OXIDE 1308-38-9	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	STEL: 1 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
METHYL AMYL KETONE 110-43-0	Skin STEL 100 ppm STEL 473 mg/m <sup>3</sup> TWA: 50 ppm TWA: 237 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 235 mg/m <sup>3</sup>	STEL: 475 mg/m <sup>3</sup> TWA: 238 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 115 mg/m <sup>3</sup> Skin STEL: 25 ppm STEL: 115 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 238 mg/m <sup>3</sup> STEL: 100 ppm STEL: 475 mg/m <sup>3</sup> Skin
CHROMIC OXIDE 1308-38-9	TWA: 2 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> STEL: 1.5 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

**8.2 Exposure controls**

**Engineering Measures**

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

**Personal protective equipment**

**Eye Protection**

Use personal protective equipment as required

<b>Hand Protection</b>	Protective gloves
<b>Skin and Body Protection</b>	Antistatic boots Wear fire/flamm resistant/retardant clothing Impervious gloves
<b>Respiratory Protection</b>	No special protective equipment required
<b>Hygiene Measures</b>	Do not eat, drink or smoke when using this product Regular cleaning of equipment, work area and clothing is recommended
<b>Environmental exposure controls</b>	Do not allow into any sewer, on the ground or into any body of water

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Appearance</b>	Opaque
<b>Odor</b>	Solvent		
<u>Property</u>	<u>Values</u>		<u>Note</u>
<b>pH VALUE</b>			no data available
<b>Melting/freezing point</b>			No data available
<b>Boiling Point</b>	98 °C / 208 °F		
<b>Flash Point</b>	4 °C / 40 °F		(based on components)
<b>Evaporation rate</b>			No data available
<b>Flammability (solid, gas)</b>			No data available
<b>Flammability Limits in Air</b>			
upper flammability limit	2.86		
lower flammability limit	0.4		
<b>Vapor pressure</b>			no data available
<b>Vapor density</b>			no data available
<b>Relative density</b>	1.09		
<b>Water solubility</b>			no data available
<b>Solubility in other solvents</b>			no data available
<b>Partition coefficient: n-octanol/water</b>			no data available
<b>Autoignition temperature</b>			No data available
<b>Decomposition temperature</b>			no data available
<b>Viscosity</b>			no data available

**9.2 Other information**

<b>VOC Content (%)</b>	35.87 %
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**10. STABILITY AND REACTIVITY**

**10.1 Reactivity**

Not applicable

**10.2 Chemical stability**

Stable under normal conditions

**10.3 Possibility of hazardous reactions**

None under normal use conditions

**10.4 Conditions to avoid**

Heat, flames and sparks

**10.5 Incompatible materials**

None in particular

**10.6 Hazardous decomposition products**

None under normal use

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Product Information

#### Acute Toxicity

Product does not present an acute toxicity hazard based on known or supplied information

**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

The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 2,301.00 mg/kg

**ATEmix (dermal)** 19,354.60 mg/kg

**ATEmix (inhalation-dust/mist)** 2.31 mg/l

#### Unknown Acute Toxicity

44.91604% of the mixture consists of ingredient(s) of unknown toxicity.

**Oral LD50** 8053 mg/kg (rat) Estimated

**Dermal LD50** 34809 mg/kg (rat) Estimated

**Inhalation LC50** 6667191 mg/l (mist) (dust) mg/m<sup>3</sup> Estimated

**Inhalation LC50**

#### 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

#### Chronic Toxicity

#### 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)

**Sensitization** No information available

**Target Organ Effects** Central nervous system (CNS) Eyes Lungs Peripheral Nervous System (PNS) Respiratory system Skin

**Aspiration hazard** No information available

## 12. ECOLOGICAL INFORMATION

### 12.1

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to daphnia and other aquatic invertebrates
METHYL AMYL KETONE	-	126 - 137: 96 h Pimephales promelas mg/L LC50 flow-through	-
TERTIARY BUTYL ACETATE	-	296 - 362: 96 h Pimephales promelas mg/L LC50 flow-through	-
HEXAMETHYLENE DIISOCYANATE	-	26.1: 96 h Brachydanio rerio mg/L LC50 static	-
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	3.82: 48 h water flea mg/L EC50 0.6: 48 h Gammarus lacustris 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 30.26 - 40.75: 96 h Poecilia reticulata mg/L LC50 static 780: 96 h Cyprinus carpio mg/L LC50 semi-static 19: 96 h Lepomis macrochirus mg/L LC50 13.1 - 16.5: 96 h Lepomis macrochirus mg/L LC50 flow-through	
METHOXYPROPANOL ACETATE	-	161: 96 h Pimephales promelas mg/L LC50 static	500: 48 h Daphnia magna mg/L EC50

**12.2 Persistence and degradability**

No information available.

**12.3 Bioaccumulative potential**

No information available.

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

No information available

**12.6 Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Waste from Residues/Unused Products**

Dispose of in accordance with local regulations

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal

**Other information**

According to the European Waste Catalog, Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used

**14. TRANSPORT INFORMATION**

**IMDG/IMO**

**14.1 UN Number**

UN1263

**14.2 Proper Shipping Name**

Paint

**14.3 Hazard Class**

3

**14.4 Packing group**

II

**Description**

UN1263, Paint, 3, II

**14.5 Environmental Hazards**

None

**14.6 Special Provisions**

**EmS-No**

F-E, S-E

**14.7 Transport in bulk according to** No information available

**Annex II of MARPOL 73/78 and the IBC Code**

**RID**

14.1 <u>UN Number</u>	UN1263
14.2 <u>Proper Shipping Name</u>	Paint
14.3 <u>Hazard Class</u>	3
14.4 <u>Packing group</u>	II
Description	UN1263, Paint, 3, II
14.5 <u>Environmental Hazards</u>	None
14.6 <u>Special Provisions</u>	
Classification Code	F1

**ADR/RID**

14.1 <u>UN Number</u>	UN1263
14.2 <u>Proper Shipping Name</u>	Paint
14.3 <u>Hazard Class</u>	3
14.4 <u>Packing group</u>	II
Description	UN1263, Paint, 3, II, (D/E)
14.5 <u>Environmental Hazards</u>	None
14.6 <u>Special Provisions</u>	
Classification Code	F1
ADR/RID-Labels	3
Tunnel restriction code	(D/E)

**ICAO**

14.1 <u>UN Number</u>	UN1263
14.2 <u>Proper Shipping Name</u>	Paint
14.3 <u>Hazard Class</u>	3
14.4 <u>Packing group</u>	II
Description	UN1263, Paint, 3, II
14.5 <u>Environmental Hazards</u>	None
14.6 <u>Special Provisions</u>	
Special Provisions	None

**IATA**

14.1 <u>UN Number</u>	UN1263
14.2 <u>Proper Shipping Name</u>	Paint
14.3 <u>Hazard Class</u>	3
14.4 <u>Packing group</u>	II
Description	UN1263, Paint, 3, II
14.5 <u>Environmental Hazards</u>	None
14.6 <u>Special Provisions</u>	
ERG Code	3L

**15. REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**International Inventories**

All of the components in the product are on the following Inventory lists Canada (DSL/NDSL).

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

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances



DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

### 15.2 Chemical Safety Assessment

No information available

## 16. OTHER INFORMATION

### Full text of R-phrases referred to under sections 2 and 3

R10 - Flammable

R11 - Highly flammable

R20/22 - Harmful by inhalation and if swallowed

### Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapor

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H312 - Harmful in contact with skin

H315 - Causes skin irritation

H225 - Highly flammable liquid and vapor

H340 - May cause genetic defects if inhaled

H350 - May cause cancer if swallowed

H372 - Causes damage to organs through prolonged or repeated exposure if inhaled

H304 - May be fatal if swallowed and enters airways

H331 - Toxic if inhaled

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

EUH066 - Repeated exposure may cause skin dryness or cracking

SVHC: Substances of Very High Concern for Authorization:

TWA	Time-Weighted Average	STEL:	Short term occupational exposure limit value
Ceiling	Maximum limit value	*	Skin designation

Issuing Date: 22-Dec-2011

Revision Date: 22-May-2012

Revision Note: Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

### 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.