



Material Safety Data Sheet

Issuing Date: 22-Dec-2011

Revision Date: 29-Mar-2014

Version: 1.3

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: 31102YPX-T1

Hentzen Coatings, Inc.
6937 West Mill Road, Milwaukee, WI 53218-1225

Product Name: 13538 YELLOW URETHANE,
MIL-PRF-85285E, TYPE I, CLASS H, PART A
Company Phone Number: 1-414-353-4200
Emergency Telephone: ChemTrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

Harmful by inhalation

May cause central nervous system depression

EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE

Potential Health Effects

Principle Routes of Exposure

Inhalation, Skin Contact, Eye Contact

Acute Toxicity

Eyes

Prolonged contact may result in chemical burns or blindness.

Skin

May cause skin irritation and/or dermatitis. Repeated exposure may cause skin dryness or cracking. Prolonged skin contact may defat the skin and produce dermatitis.

Inhalation

May be harmful if inhaled.

Ingestion

Harmful if swallowed.

Chronic Toxicity

No known effect based on information supplied.

Aggravated Medical Conditions

Central nervous system. Preexisting eye disorders. Skin disorders. Respiratory disorders. Central Vascular System (CVS). Peripheral Nervous System (PNS). Lungs.

Interactions with Other Chemicals

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 AMYL KETONE	110-43-0	20% - 30%	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 465 mg/m ³

METHYL ACETATE	79-20-9	10% - 20%	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 610 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 760 mg/m ³
ACETYLACETONE	123-54-6	0% - 5%	N/A	N/A
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	68186-90-3	0% - 5%	TWA: 0.5 mg/m ³ Sb TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Sb TWA: 0.5 mg/m ³ Cr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 0.5 mg/m ³ Cr
TITANIUM DIOXIDE	13463-67-7	0% - 5%	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust
XYLENE(PURE)	1330-20-7	0% - 5%	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³
ETHYLBENZENE	100-41-4	0% - 5%	STEL: 125 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³
1,2,4-TRIMETHYLBENZENE	95-63-6	0% - 5%	N/A	N/A

4. FIRST AID MEASURES

General advice	Immediate medical attention is required. Show this material safety data sheet to the doctor in attendance.
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. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with plenty of water.
Inhalation	Consult a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.
Ingestion	Do NOT induce vomiting.

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 5.57 %
Lower 0.98 %

Suitable Extinguishing Media Dry Chemical.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge Yes.

Specific hazards arising from the chemical Extremely 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

NFPA	Health Hazard 2	Flammability 4	Stability 0	Physical and chemical hazards -
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. 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.

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

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 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL
METHYL AMYL KETONE	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 465 mg/m ³

METHYL ACETATE	STEL: 250 ppm TWA: 200 ppm	TWA: 200 ppm TWA: 610 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 610 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 760 mg/m ³
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	TWA: 0.5 mg/m ³ Sb TWA: 0.5 mg/m ³ Cr	TWA: 0.5 mg/m ³ Sb TWA: 0.5 mg/m ³ Cr (vacated) TWA: 0.5 mg/m ³ Sb (vacated) TWA: 0.5 mg/m ³ Cr
TITANIUM DIOXIDE	TWA: 10 mg/m ³	TWA: 15 mg/m ³ total dust (vacated) TWA: 10 mg/m ³ total dust
XYLENE(PURE)	STEL: 150 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m ³
ETHYLBENZENE	STEL: 125 ppm TWA: 100 ppm	TWA: 100 ppm TWA: 435 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m ³ (vacated) STEL: 125 ppm (vacated) STEL: 545 mg/m ³

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.

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	1.06
Weight per Gallon (lbs/gal):	8.86		
Flammability Limits in Air			
Upper	5.57 %		
Lower	0.98 %		

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 Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO₂).

Hazardous Polymerization Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information Long-term repeated exposure to Xylene may result in hearing loss.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
METHYL AMYL KETONE	1670 mg/kg (Rat)	12600 µL/kg (Rabbit)	N/A
METHYL ACETATE	5000 mg/kg (Rat)	2000 mg/kg (Rat) 5000 mg/kg (Rabbit)	16000 ppm (Rat) 4 h
ACETYLACETONE	55 mg/kg (Rat)	810 µL/kg (Rabbit)	1224 ppm (Rat) 4 h
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	10000 mg/kg (Rat)	N/A	N/A
TITANIUM DIOXIDE	10000 mg/kg (Rat)	N/A	N/A
XYLENE(PURE)	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	47635 mg/L (Rat) 4 h 5000 ppm (Rat) 4 h
ETHYLBENZENE	3500 mg/kg (Rat)	15354 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h
1,2,4-TRIMETHYLBENZENE	3400 mg/kg (Rat)	3160 mg/kg (Rabbit)	18 g/m ³ (Rat) 4 h

Chronic Toxicity

Product Information Long-term repeated exposure to Xylene may result in hearing loss.

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
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	Group 3	N/A	N/A	N/A
TITANIUM DIOXIDE	Group 2B	N/A	N/A	X
XYLENE(PURE)	Group 3	N/A	N/A	N/A
ETHYLBENZENE	Group 2B	A3	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 & Health Administration)

X - Present

Target Organ Effects Central nervous system (CNS), Central Vascular System (CVS), 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 AMYL KETONE	N/A	126-137: 96 h Pimephales promelas mg/L LC50 flow-through	N/A	N/A
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	N/A	1026.7: 48 h Daphnia magna mg/L EC50
ACETYLACETONE	N/A	98.3-110: 96 h Pimephales promelas mg/L LC50 flow-through 50.3-71.8: 96 h Lepomis macrochirus mg/L LC50 flow-through 64.1-80.1: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	N/A	34.4: 48 h Daphnia magna mg/L EC50
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	N/A	10000: 96 h Leuciscus idus mg/L LC50 static	N/A	N/A
XYLENE(PURE)	N/A	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	N/A	3.82: 48 h water flea mg/L EC50 0.6: 48 h Gammarus lacustris mg/L LC50
ETHYLBENZENE	4.6: 72 h Pseudokirchneriella subcapitata mg/L EC50 438: 96 h Pseudokirchneriella subcapitata mg/L EC50 2.6 - 11.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 static 1.7 - 7.6: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	11.0-18.0: 96 h Oncorhynchus mykiss mg/L LC50 static 4.2: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 7.55-11: 96 h Pimephales promelas mg/L LC50 flow-through 32: 96 h Lepomis macrochirus mg/L LC50 static 9.1-15.6: 96 h Pimephales promelas mg/L LC50 static 9.6: 96 h Poecilia reticulata mg/L LC50 static	N/A	1.8 - 2.4: 48 h Daphnia magna mg/L EC50
1,2,4-TRIMETHYLBENZENE	N/A	7.19-8.28: 96 h Pimephales promelas mg/L LC50 flow-through	N/A	6.14: 48 h Daphnia magna mg/L EC50

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

U140 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
METHYL ACETATE	Toxic Ignitable
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	Toxic Corrosive Ignitable
XYLENE(PURE)	Toxic Ignitable
ETHYLBENZENE	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

Proper shipping name Paint
Hazard class 3
UN/ID No UN1263
Packing Group II
Reportable Quantity (RQ) Xylenes isomers and mixture: RQ kg= 3689.11
Description UN1263, Paint, 3, II, RQ
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/NDL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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 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	Weight	SARA 313 - Threshold Values %
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	68186-90-3	0% - 5%	1.0
XYLENE(PURE)	1330-20-7	0% - 5%	1.0
ETHYLBENZENE	100-41-4	0% - 5%	0.1

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

Clean Air Act

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
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	68186-90-3	0% - 5%	Present	N/A	N/A	N/A
XYLENE(PURE)	1330-20-7	0% - 5%	Present	Group I	N/A	N/A
ETHYLBENZENE	100-41-4	0% - 5%	Present	Group I	N/A	N/A

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
XYLENE(PURE)	100 lb	N/A	N/A	X
ETHYLBENZENE	1000 lb	X	X	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
XYLENE(PURE)	100 lb	N/A	RQ 100 lb final RQ 45.4 kg final RQ
ETHYLBENZENE	1000 lb	N/A	RQ 1000 lb final RQ 454 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
ETHYLBENZENE	100-41-4	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
METHYL ACETATE	X	X	X	N/A	X
ACETYLACETONE	X	X	X	N/A	N/A
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	N/A	X	X	X	X
TITANIUM DIOXIDE	X	X	X	N/A	X
XYLENE(PURE)	X	X	X	X	X
BUTYL ACETATE	X	X	X	N/A	X
ETHYLBENZENE	X	X	X	X	X

International Regulations

Mexico - Grade

Serious risk, Grade 3

Chemical Name	Carcinogen Status	Exposure Limits
METHYL AMYL KETONE	N/A	Mexico: TWA 50 ppm Mexico: TWA 235 mg/m ³ Mexico: STEL 100 ppm Mexico: STEL 465 mg/m ³
METHYL ACETATE	N/A	Mexico: TWA 200 ppm Mexico: TWA 610 mg/m ³ Mexico: STEL 250 ppm Mexico: STEL 760 mg/m ³
CHROME,NICKEL,ANTIMONY TITANIUM DIOXIDE PIGMENT	N/A	Mexico: TWA 0.5 mg/m ³
TITANIUM DIOXIDE	N/A	Mexico: TWA 10 mg/m ³ Mexico: STEL 20 mg/m ³
XYLENE(PURE)	N/A	Mexico: TWA 100 ppm Mexico: TWA 435 mg/m ³ Mexico: STEL 150 ppm Mexico: STEL 655 mg/m ³
ETHYLBENZENE	N/A	Mexico: TWA 100 ppm Mexico: TWA 435 mg/m ³ Mexico: STEL 125 ppm Mexico: STEL 545 mg/m ³

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.

end