

Safety Data Sheet

Issue Date 12-Aug-2015 Revision Date 12-Aug-2015 Revision Number 5

1. IDENTIFICATION

Product identifier

Product Code F104-00WHA

Product Name H.S. EPOXY TNEMEC WHITE

Other means of identification

Common Name SERIES 104, PART A

UN/ID no. 1263

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.

Uses advised againstConsumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address Distributor

Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203

64120-1372 Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400

24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

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
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Flammable Liquids	Category 3

Label elements

EMERGENCY OVERVIEW

LIVILITATION OF THE PROPERTY O			
Danger			

Hazard statements

Harmful if swallowed

Harmful if inhaled

Causes severe skin burns and eye damage

May cause an allergic skin reaction

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause respiratory irritation. May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

Flammable liquid and vapor



Appearance opaque

Physical state liquid

Odor aromatic

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

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

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/mixing/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Keep cool

Response

Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell

Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do NOT induce vomiting

In case of fire: Use CO2, dry chemical, or foam for extinction

Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Keep away from children

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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

Harmful to aquatic life

SEE SAFETY DATA SHEET

Acute Toxicity

5.08983661 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
BARIUM SULFATE (TOTAL DUST)	7727-43-7	30 - 60%
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	10 - 30%
BENZYL ALCOHOL	100-51-6	1 - 10%
XYLENE	1330-20-7	1 - 10%
MODIFIED ALIPHATIC AMINE	2855-13-2	1 - 10%
TALC (RESPIRABLE DUST)	14807-96-6	1 - 10%
ETHYL BENZENE	100-41-4	1 - 10%
BENZENE, 1,3-DIMETHYL	108-38-3	0.1 - 1%

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If

symptoms persist, call a physician.

Skin contactWash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. If symptoms persist, call a physician.

Inhalation Remove to fresh air. Oxygen or artificial respiration if needed.

Ingestion If swallowed, do not induce vomiting. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and

liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Hydrocarbons. Nitrogen oxides (NOx). Aldehydes. Nitric acid,

nitrosamine.

Protective equipment and precautions for firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all

sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or

sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containment Remove all sources of ignition. Spills may be collected with inert, absorbent material for

proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer

absorbent material to suitable containers for proper disposal.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated

absorbent, container and unused contents in accordance with local, state and federal

regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink

or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash

thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep away from heat, sparks and flame. Keep container tightly closed in a dry and

well-ventilated place. Keep out of the reach of children.

Incompatible products Strong oxidizing agents. Bases. Acids. Metals. Hypochlorites. Peroxides. Epoxy

constituents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
BARIUM SULFATE (TOTAL DUST) 7727-43-7	TWA: 5 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³ TWA: 15 mg/m³	

TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	TWA: 10 mg/m³	TWA: 10 mg/m³ TWA: 15 mg/m³	5000 mg/m ³
XYLENE 1330-20-7	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 150 ppm STEL: 655 mg/m³	
TALC (RESPIRABLE DUST) 14807-96-6	TWA: 2 mg/m³	TWA: 2 mg/m³	1000 mg/m ³
ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³	800 ppm
BENZENE, 1,3-DIMETHYL 108-38-3	TWA: 100 ppm STEL: 150 ppm	-	900 ppm

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and

general exhaust to keep the air contaminant concentration below current applicable OSHA

Permissible Exposure Limits (PEL) and ACGIH's Threshold Limit Values (TLV). Appropriate ventilation should be employed to remove hazardous decomposition products

formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protectionUse chemical resistant splash type goggles. If splashes are likely to occur, wear

face-shield.

Skin and body protectionWear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls,

as appropriate, to prevent skin contact.

Respiratory protectionUse only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh

air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and

after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance opaque Odor aromatic

Color No information available Odor threshold No information available

Property Values Remarks

No data available

No data available
No data available

Melting point / freezing point

No data available

Boiling point / boiling range

135 °C / 275.0 °F

Flash point 27 °C / 81.0 °F Pensky Martens - Closed Cup

Evaporation rate No data available

Flammability (solid, gas)

No information available
Flammability Limit in Air

No data available

Upper flammability limit
Lower flammability limit
Vapor pressure

N/A

1.0

No data available

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Vapor density No data available

Specific gravity 2.17226 g/cm3

Water solubility Insoluble in cold water

Solubility in other solventsNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data availableDecomposition temperatureNo data availableKinematic viscosityNo data available

Dynamic viscosity 1100 centipoises approx

Other Information

Density 18.07646 lbs/gal Volatile organic compounds (VOC) 1.912 lbs/gal content

Total volatiles weight percent 10.5760 % Total volatiles volume percent 26.0422 %

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Epoxy constituents.

Incompatible materials

Strong oxidizing agents, Bases, Acids, Metals, Hypochlorites, Peroxides, Epoxy constituents

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Hydrocarbons. Nitrogen oxides (NOx). Aldehydes. Nitric acid, nitrosamine.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation May cause central nervous system depression with nausea, headache, dizziness, vomiting,

and incoordination.

Eye contact Corrosive to the eyes and may cause severe damage including blindness.

Skin contactContact causes severe skin irritation and possible burns. May cause sensitization by skin

contact.

Ingestion Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	> 10000 mg/kg(Rat)		
BENZYL ALCOHOL 100-51-6	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 8.8 mg/L (Rat) 4 h
XYLENE 1330-20-7	= 3500 mg/kg (Rat)	> 1700 mg/kg(Rabbit)> 4350 mg/kg(Rabbit)	= 29.08 mg/L (Rat) 4 h = 5000 ppm (Rat) 4 h

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MODIFIED ALIPHATIC AMINE 2855-13-2	= 1030 mg/kg (Rat)		
ETHYL BENZENE 100-41-4	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat)4 h
BENZENE, 1,3-DIMETHYL 108-38-3	= 5000 mg/kg (Rat)	= 14100 μL/kg(Rabbit)	

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Skin disorders.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity Causes severe damage to eyes and skin. May be corrosive to metals.

Sensitization May cause sensitization of susceptible persons.

Mutagenicity May cause genetic defects.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7		Group 2B		X
XYLENE 1330-20-7		Group 3		
TALC (RESPIRABLE DUST) 14807-96-6		Group 3		
ETHYL BENZENE 100-41-4	A3	Group 2B		Х
BENZENE, 1,3-DIMETHYL 108-38-3		Group 3		

Reproductive effectsSuspected of damaging fertility or the unborn child. **STOT - single exposure**May cause disorder and damage to the, Skin, Eyes

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure

Target organ effects blood, Central nervous system, Čentral Vascular System (CVS), Gastrointestinal tract,

Eyes, kidney, liver, Lungs, respiratory system, Skin.

Aspiration hazard Based on product level data, this product does not meet the requirement to be classified as

an aspiration hazard. However, this product contains an ingredient that may cause

aspiration if swallowed.

Acute Toxicity 5.08983661 % of the mixture consists of ingredient(s) of unknown toxicity.

The following values are calculated based on chapter 3.1 of the GHS document $\,$.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

6.14316 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
BENZYL ALCOHOL 100-51-6	35: 3 h Anabaena variabilis mg/L EC50	10: 96 h Lepomis macrochirus mg/L LC50 static 460: 96 h Pimephales promelas mg/L LC50 static	23: 48 h water flea mg/L EC50

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XYLENE		LC50= 13.4 mg/L Pimephales	EC50 = 3.82 mg/L 48 h LC50 = 0.6
1330-20-7		promelas 96 h LC50 2.661 - 4.093	mg/L 48 h
		mg/L Oncorhynchus mykiss 96 h	
		LC50 13.5 - 17.3 mg/L	
		Oncorhynchus mykiss 96 h LC50	
		13.1 - 16.5 mg/L Lepomis	
		macrochirus 96 h LC50= 19 mg/L	
		Lepomis macrochirus 96 h LC50	
		7.711 - 9.591 mg/L Lepomis	
		macrochirus 96 h LC50 23.53 -	
		29.97 mg/L Pimephales promelas	
		96 h LC50= 780 mg/L Cyprinus	
		carpio 96 h LC50> 780 mg/L	
		Cyprinus carpio 96 h LC50 30.26 -	
		40.75 mg/L Poecilia reticulata 96 h	
MODIFIED ALIPHATIC AMINE	37: 72 h Desmodesmus subspicatus	110: 96 h Leuciscus idus mg/L	42: 24 h Daphnia magna mg/L
2855-13-2	mg/L EC50	LC50 semi-static	EC50 14.6 - 21.5: 48 h Daphnia
			magna mg/L EC50 semi-static
TALC (RESPIRABLE DUST)		100: 96 h Brachydanio rerio g/L	
14807-96-6		LC50 semi-static	
ETHYL BENZENE	4.6: 72 h Pseudokirchneriella	11.0 - 18.0: 96 h Oncorhynchus	1.8 - 2.4: 48 h Daphnia magna mg/L
100-41-4	subcapitata mg/L EC50 438: 96 h	mykiss mg/L LC50 static 32: 96 h	EĊ50
	Pseudokirchneriella subcapitata	Lepomis macrochirus mg/L LC50	
	mg/L EC50 2.6 - 11.3: 72 h	static 4.2: 96 h Oncorhynchus	
	Pseudokirchneriella subcapitata	mykiss mg/L LC50 semi-static 7.55 -	
	mg/L EC50 static 1.7 - 7.6: 96 h	11: 96 h Pimephales promelas mg/L	
	Pseudokirchneriella subcapitata	LC50 flow-through 9.6: 96 h Poecilia	
	mg/L EC50 static	reticulata mg/L LC50 static 9.1 -	
	l °	15.6: 96 h Pimephales promelas	
		mg/L LC50 static	
BENZENE, 1,3-DIMETHYL	4.9: 72 h Pseudokirchneriella	8.4: 96 h Oncorhynchus mykiss	2.81 - 5.0: 48 h Daphnia magna
108-38-3	subcapitata mg/L EC50 static	mg/L LC50 semi-static 14.3 - 18: 96	mg/L EC50 Static
	·	h Pimephales promelas mg/L LC50	
		flow-through 12.9: 96 h Poecilia	
		reticulata mg/L LC50 semi-static	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Component	log Pow
BENZYL ALCOHOL 100-51-6	1.1
XYLENE 1330-20-7	2.77
MODIFIED ALIPHATIC AMINE 2855-13-2	0.79
ETHYL BENZENE 100-41-4	3.118
BENZENE, 1,3-DIMETHYL 108-38-3	3.2

Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods

Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging

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

Component	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
XYLENE		Included in waste stream:		U239
1330-20-7		F039		
ETHYL BENZENE		Included in waste stream:		
100-41-4		F039		

Component	CAWAST
BARIUM SULFATE (TOTAL DUST)	Toxic
7727-43-7	
XYLENE	Toxic
1330-20-7	Ignitable
ETHYL BENZENE	Toxic
100-41-4	Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no. 1263
Proper Shipping Name paint
Hazard Class 3
Packing Group III
Emergency Response Guide 128

Number

IATA

UN/ID no. 1263
Proper Shipping Name paint Hazard Class 3
Packing Group III
ERG Code 366

Additional information

Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes

of Transportation.

15. REGULATORY INFORMATION

International Inventories

Complies **TSCA** Does not comply **DSL/NDSL EINECS/ELINCS** Does not comply **ENCS** Does not comply **IECSC** Complies Does not comply **KECL** Does not comply **PICCS** Does not comply **AICS**

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 Commercial Chemical Substances/EU 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

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Component HAPS Data

XYLĖNE

ATELINE

ETHYL BENZENE BENZENE, 1,3-DIMETHYL

United States of America

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 and Title 40n of the Code of Federal Regulations, Part 372:

Component	SARA 313 - Threshold Values
BARIUM SULFATE (TOTAL DUST) - 7727-43-7	1.0
XYLENE - 1330-20-7	1.0
ETHYL BENZENE - 100-41-4	0.1
BENZENE, 1,3-DIMETHYL - 108-38-3	1.0

SARA 311/312 Hazardous

Categorization

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard Yes
Sudden Release of Pressure Hazard No
Reactive Hazard No

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE 1330-20-7	100 lb			Х
ETHYL BENZENE 100-41-4	1000 lb	X	X	Х
BENZENE, 1,3-DIMETHYL 108-38-3				Х

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
XYLENE	100 lb		RQ 100 lb final RQ
1330-20-7			RQ 45.4 kg final RQ
ETHYL BENZENE	1000 lb		RQ 1000 lb final RQ
100-41-4			RQ 454 kg final RQ
BENZENE, 1,3-DIMETHYL	1000 lb		RQ 1000 lb final RQ
108-38-3			RQ 454 kg final RQ

United States of America

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer

With the product contains a chemical known in the state of Camernia to cause cancer		
Component		California Prop. 65
	TITANIUM DIOXIDE (TOTAL DUST) - 13463-67-7	Carcinogen
	ETHYL BENZENE - 100-41-4	Carcinogen

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
BARIUM SULFATE (TOTAL DUST) 7727-43-7	X	X	Х
TITANIUM DIOXIDE (TOTAL DUST) 13463-67-7	X	X	Х
BENZYL ALCOHOL 100-51-6		X	Х
XYLENE 1330-20-7	Х	X	Х

MODIFIED ALIPHATIC AMINE 2855-13-2	X		
TALC (RESPIRABLE DUST) 14807-96-6	X	X	Х
ETHYL BENZENE 100-41-4	X	X	Х
BENZENE, 1,3-DIMETHYL 108-38-3	X	X	Х

16. OTHER INFORMATION

NFPA Health 3 Flammability 3 Instability 1 Physical hazard *
HMIS (Hazardous Health 3* Flammability 3 Reactivity 1

Material Information

System)

Prepared By
Revision Date
Revision Summary

Tnemec Regulatory Dept: 816-474-3400 12-Aug-2015

Revision Summary
1 4 5 7 10 8 9 11 14 2

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot quarantee that these are the only hazards which exist.

End of SDS



Safety Data Sheet

Issue Date 29-Jul-2015 Revision Date 29-Jul-2015 Revision Number 9

1. IDENTIFICATION

Product identifier

Product Code F104-0104B

Product Name H.S. EPOXY CONVERTER

Other means of identification

Common Name SERIES 104, PART B

UN/ID no. 1263

Recommended use of the chemical and restrictions on use

Recommended Use industrial paint.

Uses advised againstConsumer use, For professional use only. Not for residential use.

Details of the supplier of the safety data sheet

Manufacturer Address Distributor

Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO Tnemec Company, Inc. 86 Boul, des Entreprises, Ste. 203

64120-1372 Boisbriand, Quebec Canada J7G 2T3

Emergency telephone number

Company Phone Number Tnemec Regulatory Dept: 816-474-3400

24 Hour Emergency Phone Number 800-535-5053 (Infotrac)

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 - Dermal	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Carcinogenicity	Category 2
Reproductive Toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 1
Flammable Liquids	Category 3

EMEDGENCY OVEDVIEW

Label elements

Danger

LIVILINGLIACT OVERVIEW

Hazard statements

Harmful if swallowed

Harmful in contact with skin

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

Causes damage to organs through prolonged or repeated exposure

Flammable liquid and vapor



Appearance opaque

Physical state liquid

Odor aromatic

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

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Do not breathe dust/fume/gas/mist/vapors/spray

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/mixing/equipment

Use only non-sparking tools

Take precautionary measures against static discharge

Response

IF exposed or concerned: Get medical advice/attention

Specific treatment (see .? on this label)

Specific treatment (see .? on this label)

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

Call a POISON CENTER or doctor/physician if you feel unwell

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 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

Storage

Store locked up

Store in a well-ventilated place. Keep cool

Keep away from children

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

Toxic to aquatic life with long lasting effects Toxic to aquatic life

SEE SAFETY DATA SHEET

Acute Toxicity 37.47468109 % of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight-%
EPOXY RESIN (LER)	25085-99-8	30 - 60%
TALC (RESPIRABLE DUST)	14807-96-6	10 - 30%
EPOXY RESIN	171263-25-5	1 - 10%
XYLENE	1330-20-7	1 - 10%
ETHYL BENZENE	100-41-4	1 - 10%
BENZENE, 1,3-DIMETHYL	108-38-3	0.1 - 1%

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice If symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If

symptoms persist, call a physician.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. If symptoms persist, call a physician.

Inhalation Remove to fresh air. Oxygen or artificial respiration if needed.

Ingestion If swallowed, do not induce vomiting. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

Notes to physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide. Foam. Dry chemical.

Unsuitable extinguishing media Water.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating gases and vapours In the event of fire and/or explosion do not breathe fumes

Hazardous combustion products Hazardous combustion products may include: A complex mixture of airborne solid and

liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Hydrocarbons. Nitrogen oxides (NOx). Aldehydes. Nitric acid,

nitrosamine.

Protective equipment and precautions for firefighters

Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. MAY CAUSE HEAT AND PRESSURE BUILD-UP IN CLOSED CONTAINERS. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes, skin and clothing. Use personal protective equipment. Remove all

sources of ignition.

Environmental Precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or

sanitary sewer system.

Methods and material for containment and cleaning up

Methods for containmentRemove all sources of ignition. Spills may be collected with inert, absorbent material for

proper disposal. Use non-sparking tools, protective gloves, goggles and clothing, adequate ventilation, avoid the breathing of vapors and use respiratory protective devices. Transfer

absorbent material to suitable containers for proper disposal.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated

absorbent, container and unused contents in accordance with local, state and federal

regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Close container after each use. Avoid contact with eyes, skin and clothing. Do not eat, drink

or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash

thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Keep away from heat, sparks and flame. Keep container tightly closed in a dry and

well-ventilated place. Keep out of the reach of children.

Incompatible products Strong oxidizing agents. Bases. Acids. Metals. Hypochlorites. Peroxides. Epoxy

constituents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
TALC (RESPIRABLE DUST) 14807-96-6	TWA: 2 mg/m ³	TWA: 2 mg/m ³	1000 mg/m ³
XYLENE 1330-20-7	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 150 ppm STEL: 655 mg/m³	

ETHYL BENZENE 100-41-4	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ STEL: 125 ppm STEL: 545 mg/m³	800 ppm
BENZENE, 1,3-DIMETHYL 108-38-3	TWA: 100 ppm STEL: 150 ppm	-	900 ppm

Appropriate engineering controls

Engineering measures Sufficient ventilation, in volume and pattern, should be provided through both local and

general exhaust to keep the air contaminant concentration below current applicable OSHA

Permissible Exposure Limits (PEL) and ACGIH"s Threshold Limit Values (TLV).

Appropriate ventilation should be employed to remove hazardous decomposition products formed during welding or flame cutting operations of surfaces coated with this product.

Individual protection measures, such as personal protective equipment

Eye/face protectionUse chemical resistant splash type goggles. If splashes are likely to occur, wear

face-shield.

Skin and body protectionWear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls,

as appropriate, to prevent skin contact.

Respiratory protection Use only with adequate ventilation. Do not breathe vapors, spray mist, or dust. Ensure fresh

air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist or dust levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and

after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance opaque Odor aromatic

Color No information available **Odor threshold** No information available

 Property
 Values
 Remarks

 pH
 No data available

 Melting point / freezing point
 No data available

Melting point / freezing point

Boiling point / boiling range 135 °C / 275.0 °F

Flash point 27 °C / 81.0 °F Pensky Martens - Closed Cup

Evaporation rate

Flammability (solid, gas)

Flammability Limit in Air

No data available
No information available
No data available

Upper flammability limit N/A

Lower flammability limit 1.0

Vapor pressureNo data availableVapor densityNo data available

Vapor density
No data available
Specific gravity
1.33797
No data available
g/cm3

Water solubility Insoluble in cold water

Solubility in other solventsNo data availablePartition coefficient: n-octanol/waterNo data availableAutoignition temperatureNo data available

Decomposition temperature

No data available

Kinematic viscosity

No data available

Dynamic viscosity 1100 centipoises approx

Other Information

Density 11.15869 lbs/gal **Volatile organic compounds (VOC)** 0.8648 lbs/gal

content

Total volatiles weight percent 7.75 % Total volatiles volume percent 11.92 %

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks. Epoxy constituents.

Incompatible materials

Strong oxidizing agents, Bases, Acids, Metals, Hypochlorites, Peroxides, Epoxy constituents

Hazardous decomposition products

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Carbon oxides. Hydrocarbons. Nitrogen oxides (NOx). Aldehydes. Nitric acid, nitrosamine.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation May cause central nervous system depression with nausea, headache, dizziness, vomiting,

and incoordination.

Eye contact Corrosive to the eyes and may cause severe damage including blindness.

Skin contactContact causes severe skin irritation and possible burns. May cause sensitization by skin

contact.

Ingestion Harmful if swallowed.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
XYLENE	= 3500 mg/kg (Rat)	> 1700 mg/kg (Rabbit) > 4350	= 29.08 mg/L (Rat) 4 h = 5000
1330-20-7		mg/kg (Rabbit)	ppm (Rat)4h
ETHYL BENZENE	= 3500 mg/kg (Rat)	= 15400 mg/kg (Rabbit)	= 17.2 mg/L (Rat) 4 h
100-41-4			
BENZENE, 1,3-DIMETHYL	= 5000 mg/kg (Rat)	= 14100 μL/kg (Rabbit)	
108-38-3			

Information on toxicological effects

Symptoms Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Skin disorders.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Corrosivity Causes severe damage to eyes and skin. May be corrosive to metals.

Sensitization May cause sensitization of susceptible persons.

Mutagenicity May cause genetic defects.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA
TALC (RESPIRABLE DUST) 14807-96-6		Group 3		
XYLENE 1330-20-7		Group 3		
ETHYL BENZENE 100-41-4	A3	Group 2B		Х
BENZENE, 1,3-DIMETHYL 108-38-3		Group 3		

Reproductive effects STOT - single exposure STOT - repeated exposure Suspected of damaging fertility or the unborn child. May cause disorder and damage to the, Skin, Eyes

Causes damage to organs through prolonged or repeated exposure

Target organ effects blood, Central nervous system, Central Vascular System (CVS), Gastrointestinal tract,

Eyes, kidney, liver, Lungs, respiratory system, Skin.

Aspiration hazard

Based on product level data, this product does not meet the requirement to be classified as

an aspiration hazard. However, this product contains an ingredient that may cause

aspiration if swallowed.

Acute Toxicity

37.47468109 % of the mixture consists of ingredient(s) of unknown toxicity.

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

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

9.24784 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Toxicity to algae	Toxicity to fish	Toxicity to daphnia
EPOXY RESIN (LER) 25085-99-8	11 mg/L 72 hr	2 mg/L 96 hr Oncorhynchus mykiss	1.8 mg/L 48h
TALC (RESPIRABLE DUST)		100: 96 h Brachydanio rerio g/L	
14807-96-6		LC50 semi-static	
XYLENE		LC50= 13.4 mg/L Pimephales	EC50 = 3.82 mg/L 48 h LC50 = 0.6
1330-20-7		promelas 96 h LC50 2.661 - 4.093	mg/L 48 h
		mg/L Oncorhynchus mykiss 96 h	-
		LC50 13.5 - 17.3 mg/L	
		Oncorhynchus mykiss 96 h LC50	
		13.1 - 16.5 mg/L Lepomis	
		macrochirus 96 h LC50= 19 mg/L	
		Lepomis macrochirus 96 h LC50	
		7.711 - 9.591 mg/L Lepomis	
		macrochirus 96 h LC50 23.53 -	
		29.97 mg/L Pimephales promelas	
		96 h LC50= 780 mg/L Cyprinus	
		carpio 96 h LC50> 780 mg/L	
		Cyprinus carpio 96 h LC50 30.26 -	
		40.75 mg/L Poecilia reticulata 96 h	
ETHYL BENZENE	4.6: 72 h Pseudokirchneriella		1.8 - 2.4: 48 h Daphnia magna mg/L
100-41-4	subcapitata mg/L EC50 438: 96 h	mykiss mg/L LC50 static 32: 96 h	EC50
	Pseudokirchneriella subcapitata	Lepomis macrochirus mg/L LC50	
	mg/L EC50 2.6 - 11.3: 72 h	static 4.2: 96 h Oncorhynchus	
	Pseudokirchneriella subcapitata	mykiss mg/L LC50 semi-static 7.55 -	
	mg/L EC50 static 1.7 - 7.6: 96 h	11: 96 h Pimephales promelas mg/L	
	Pseudokirchneriella subcapitata	LC50 flow-through 9.6: 96 h Poecilia	
	mg/L EC50 static	reticulata mg/L LC50 static 9.1 -	
		15.6: 96 h Pimephales promelas	
		mg/L LC50 static	
BENZENE, 1,3-DIMETHYL	4.9: 72 h Pseudokirchneriella	8.4: 96 h Oncorhynchus mykiss	2.81 - 5.0: 48 h Daphnia magna
108-38-3	subcapitata mg/L EC50 static	mg/L LC50 semi-static 14.3 - 18: 96	mg/L EC50 Static
		h Pimephales promelas mg/L LC50	
		flow-through 12.9: 96 h Poecilia	
		reticulata mg/L LC50 semi-static	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility in Environmental Media

Component	log Pow
XYLENE	2.77
1330-20-7	
ETHYL BENZENE	3.118
100-41-4	
BENZENE, 1,3-DIMETHYL	3.2
108-38-3	

Other Adverse Effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal Methods Keep container tightly closed. If spilled, contain spilled material and remove with inert

absorbent. Dispose of contaminated absorbent, container and unused contents in

accordance with local, state and federal regulations.

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

disposal.

Component	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
XYLENE		Included in waste stream:		U239
1330-20-7		F039		
ETHYL BENZENE		Included in waste stream:		
100-41-4		F039		

Component	CAWAST
XYLENE	Toxic
1330-20-7	Ignitable
ETHYL BENZENE	Toxic
100-41-4	Ignitable

14. TRANSPORT INFORMATION

DOT

UN/ID no. 1263
Proper Shipping Name paint
Hazard Class 3
Packing Group III
Emergency Response Guide 128
Number

IATA

UN/ID no. 1263
Proper Shipping Name paint
Hazard Class 3
Packing Group III
ERG Code 366

<u>Additional information</u> Call TNEMEC Traffic Department - 816-474-3400 for additional information or other modes

of Transportation.

15. REGULATORY INFORMATION

F104-0104B H.S. EPOXY CONVERTER

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Does not comply
ENCS Does not comply
IECSC Complies
KECL Does not comply

PICCS Does not comply
AICS Does not comply

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 Commercial Chemical Substances/EU 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

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

Component HAPS Date

XYLENE

ETHYL BENZENE

BENZENE, 1,3-DIMETHYL

United States of America

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 and Title 40n of the Code of Federal Regulations, Part 372:

Component	SARA 313 - Threshold Values
XYLENE - 1330-20-7	1.0
ETHYL BENZENE - 100-41-4	0.1
BENZENE. 1.3-DIMETHYL - 108-38-3	1.0

SARA 311/312 Hazardous

Categorization

Acute Health Hazard Yes
Chronic Health Hazard Yes
Fire Hazard Yes
Sudden Release of Pressure Hazard No
Reactive Hazard No

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE	100 lb			X
1330-20-7				
ETHYL BENZENE	1000 lb	X	X	X
100-41-4				
BENZENE, 1,3-DIMETHYL				X
108-38-3				

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs	RQ
XYLENE	100 lb		RQ 100 lb final RQ
1330-20-7			RQ 45.4 kg final RQ
ETHYL BENZENE	1000 lb		RQ 1000 lb final RQ
100-41-4			RQ 454 kg final RQ
BENZENE, 1,3-DIMETHYL	1000 lb		RQ 1000 lb final RQ
108-38-3			RQ 454 kg final RQ

United States of America

California Prop. 65

WARNING! This product contains a chemical known in the State of California to cause cancer

Component	California Prop. 65	
ETHYL BENZENE - 100-41-4	Carcinogen	

California SCAQMD Rule 443

Contains Photochemically Reactive Solvent

State Right-to-Know

Component	New Jersey	Massachusetts	Pennsylvania
TALC (RESPIRABLE DUST) 14807-96-6	X	Х	Х
XYLENE 1330-20-7	X	X	Х
ETHYL BENZENE 100-41-4	X	X	Х
BENZENE, 1,3-DIMETHYL 108-38-3	X	X	Х

16. OTHER INFORMATION

NFPA Health 3 Flammability 3 Instability 1 Physical hazard *
HMIS (Hazardous Health 3* Flammability 3 Reactivity 1

HMIS (Hazardous Health 3* Flammability Material Information

System)

Prepared By Tnemec Regulatory Dept: 816-474-3400 Revision Date 29-Jul-2015

Revision Summary

1 4 5 7 10 8 9 11 14

Disclaimer

For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.

To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of SDS