

Issue Date 30-Jun-2015

Revision Date 01-May-2023

Version 3

**1. IDENTIFICATION****Product identifier****Product Name** Tuffbond 304A**Other means of identification****Product Code** MS-304A**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** Epoxy Adhesive.**Uses advised against** None known**Details of the supplier of the safety data sheet****Manufacturer Address**Hernon Manufacturing Inc.  
121 Tech Drive  
Sanford, FL 32771  
800-527-0004**Emergency telephone number****Company Phone Number** 407-322-4000**Emergency Telephone** Chemtel 800-255-3924**2. HAZARDS IDENTIFICATION****Classification****OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

**Label elements****Emergency Overview****Warning****Hazard statements**

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction



<b>Appearance</b> opaque	<b>Physical state</b> Liquid	<b>Odor</b> Unpleasant
--------------------------	------------------------------	------------------------

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace

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  
IF ON SKIN: Wash with plenty of soap and water  
Take off contaminated clothing and wash before reuse  
If skin irritation or rash occurs: Get medical advice/attention

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNO)**

Not applicable

**Other Information**

Toxic to aquatic life with long lasting effects.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance**

Chemical Name	CAS No.	Weight-%	Trade Secret
BISPHENOL A EPOXY RESIN	25068-38-6	60 - 100	*

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

**4. FIRST AID MEASURES****Description of first aid measures**

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash with soap and water. Flush skin with water for several minutes. Remove contaminated clothing and shoes. If irritation develops, seek medical attention. Wash clothing before reuse.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	None known.
-----------------	-------------

**Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
---------------------------	------------------------

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. Water spray (fog).

**Unsuitable extinguishing media** Water jet.

### Specific hazards arising from the chemical

None in particular.

**Hazardous combustion products** Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>).

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

### Environmental precautions

**Environmental precautions** See section 12 for additional ecological information.

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Store in a closed container until ready for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Ensure adequate ventilation, especially in confined areas.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep at temperatures between 7 and 29 °C.

**Incompatible materials** Acids. Bases. Amines. Oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems.
----------------------	---

**Individual protection measures, such as personal protective equipment**

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear protective gloves and protective clothing.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.
--------------------------------	--

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

Physical state	Liquid	Odor	Unpleasant
Appearance	opaque	Odor threshold	Not applicable
Color	Black		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting point / freezing point	Not applicable	
Boiling point / boiling range	> 260 °C / 500 °F	
Flash point	> 252 °C / 486 °F	
Evaporation rate	Not applicable	
Flammability (solid, gas)	Not applicable	
Flammability Limit in Air		
Upper flammability limit:	Not applicable	
Lower flammability limit:	Not applicable	
Vapor pressure	0.03 hPa @ 77°C / 171°F	
Vapor density	Not applicable	
Relative density	1.17	
Water solubility	Insoluble	
Solubility in other solvents	Not applicable	
Partition coefficient	Not applicable	
Autoignition temperature	Not applicable	
Decomposition temperature	Not applicable	
Kinematic viscosity	Not applicable	
Dynamic viscosity	Not applicable	
Explosive properties	None known	
Oxidizing properties	Not applicable	

**Other Information**

Softening point	Not applicable
Molecular weight	Not applicable
VOC Content (%)	Not applicable
Density	Not applicable
Bulk density	Not applicable

**10. STABILITY AND REACTIVITY****Reactivity**

Not applicable

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Incompatible materials.

**Incompatible materials**

Acids. Bases. Amines. Oxidizing agents.

**Hazardous Decomposition Products**

Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

<b>Product Information</b>	None
<b>Inhalation</b>	No known effect based on information supplied.
<b>Eye contact</b>	No known effect based on information supplied.
<b>Skin contact</b>	No known effect based on information supplied.
<b>Ingestion</b>	No known effect based on information supplied.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
BISPHENOL A EPOXY RESIN 25068-38-6	= 11400 mg/kg ( Rat )	Not applicable	Not applicable

**Information on toxicological effects**

**Symptoms** See Section 11: TOXICOLOGICAL INFORMATION.

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

<b>Sensitization</b>	None known.
<b>Germ cell mutagenicity</b>	None known.
<b>Carcinogenicity</b>	Not applicable
<b>Reproductive toxicity</b>	Not applicable
<b>STOT - single exposure</b>	Not applicable
<b>STOT - repeated exposure</b>	Not applicable
<b>Aspiration hazard</b>	Not applicable

**Numerical measures of toxicity - Product Information**

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

ATEmix (oral) 11,400.00 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

**Persistence and degradability**

None known.

**Bioaccumulation**

None known.

**Other adverse effects**

Not applicable

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

<b>Disposal of wastes</b>	Disposal should be in accordance with applicable regional, national and local laws and regulations.
<b>Contaminated packaging</b>	Do not reuse container.

**14. TRANSPORT INFORMATION**

<b><u>DOT</u></b>	Not regulated
<b>UN/ID no.</b>	Not regulated
<b>Proper shipping name</b>	Not regulated
<b>Hazard Class</b>	Not regulated
<b>Packing Group</b>	Not regulated
<b>Special Provisions</b>	Not regulated
<b>Description</b>	Not regulated

<b><u>IATA</u></b>	
<b>UN/ID no.</b>	UN 3082
<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Special Provisions</b>	A97, A158, A197
<b>Description</b>	Limited Quantities: 5 L, 30 kg gross weight

<b><u>IMDG</u></b>	
<b>UN/ID no.</b>	UN 3082
<b>Proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy Resin)
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b>EmS-No.</b>	F-A, S-F
<b>Special Provisions</b>	274, 335, 969
<b>Marine pollutant</b>	Yes
<b>Description</b>	Limited Quantities: 5 L, 30 kg gross weight

**15. REGULATORY INFORMATION****International Inventories**

<b>TSCA</b>	Complies
-------------	----------

DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

All ingredients are on the inventory or are exempt from listing.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product 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	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (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

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals

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

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b><u>NFPA</u></b>	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties Not applicable
<b><u>HMIS</u></b>	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X
Issue Date	30-Jun-2015			

**Revision Date**

01-May-2023

**Revision Note**

Not applicable

**Disclaimer**

The information provided in this Material 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 of Safety Data Sheet**