

EFFECTIVE DATE: 05/12/2021

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: ThermalbondĪ Part B

Other means of identification: 4949G (25 g / 0.88 oz)
4951G (100 g / 3.5 oz)
4952G (200 g / 7 oz)
4953G (1474 g / 52 oz)

Product Use/Class: Epoxy Hardener

Manufactured for Aavid Boyd Corp
1 Aavid Circle
Laconia, NH 03246

Telephone: 603 528-3400
ChemTel 24 Hr Emergency
800 225-3924

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Acute toxicity Oral Category 4
Acute toxicity Dermal Category 3
Skin corrosion/irritation Category 1
Serious eye damage/eye irritation Category 1
Skin sensitization Category 1
Respiratory sensitization Category 1
Reproductive toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (single exposure) Category 1 Respiratory system
Specific target organ systemic toxicity (repeated exposure) Category 2 intestinal tract, Stomach, Respiratory system
Hazardous to the aquatic environment - chronic hazard Category 3

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

Harmful if swallowed.
Toxic in contact with skin.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Suspected of damaging fertility or the unborn child.
May cause respiratory irritation.
Causes damage to organs.(Respiratory system)
May cause damage to organs through prolonged or repeated exposure.(intestinal tract, Stomach, Respiratory system)
Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing.
Use personal protective equipment as required.
In case of inadequate ventilation wear respiratory protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Response

Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Wash contaminated clothing before reuse.

Storage

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

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Harmful if absorbed through skin. May cause respiratory tract irritation. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath.

Chronic: May cause long-term lung damage. May cause liver or kidney damage.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Range
Polydiamine	PROPRIETARY	45 - 50 %
Amine compound	PROPRIETARY	35 - 40 %
Triethanolamine	102-71-6	5 - 10 %
Amine compound	PROPRIETARY	1 - 5 %
Amine compound	PROPRIETARY	1 - 5 %
Amine curing agent	31326-29-1	1 - 5 %
Bisphenol A	80-05-7	1 - 5 %

Any "PROPRIETARY" component(s) in the above table is considered trade secret, thus the specific chemical and its exact concentration is being withheld.

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

UNSUITABLE EXTINGUISHING MEDIA: Not determined for this product.

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Keep containers tightly closed. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the SDS form. Scoop spilled material into an appropriate container for proper disposal. (If necessary, use inert absorbent material to aid in containing the spill).

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation.

STORAGE: Store only in well-ventilated areas. Keep container closed when not in use.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Polydiamine	N.E.	N.E.	N.E.	N.E.	N.A.
Amine compound	N.E.	N.E.	N.E.	N.E.	N.A.
Triethanolamine	5 mg/m3	N.E.	N.E.	N.E.	N.A.
Amine compound	1 ppm	N.E.	N.E.	N.E.	S
Amine compound	N.E.	N.E.	N.E.	N.E.	N.A.
Amine curing agent	N.E.	N.E.	N.E.	N.E.	N.A.
Bisphenol A	N.E.	N.E.	N.E.	N.E.	N.A.

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Use a NIOSH approved air-purifying organic vapor respirator if occupational limits are exceeded. For emergency situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. For respirator use observe OSHA regulations (29CFR 1910.134) or use in accordance with applicable laws and regulations of your country or particular locality.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	Ammonia	VAPOR PRESSURE:	N.D.
APPEARANCE:	Amber	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Liquid	LOWER EXPLOSIVE LIMIT:	Not Applicable
FLASH POINT:	≥ 201 °F, 93 °C Setaflash Closed Cup	UPPER EXPLOSIVE LIMIT:	Not Applicable
BOILING RANGE:	N.A.	EVAPORATION RATE:	Not Applicable Slower than n-butyl-acetate
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	0.99 g/cm ³ (8.20 lb/gal)
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	≥75 mPa.s @ 25 °C
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	≥76 mm ² /s @ 25 °C
SOLUBILITY IN H₂O:	Insoluble	VOLATILE BY WEIGHT:	0.00 %
pH:	N.A.	VOLATILE BY VOLUME:	0.00 %
FREEZE POINT:	N.D.	VOC CALCULATED:	0 lb/gal, 0 g/10 g/l
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.		

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures.

INCOMPATIBILITY: Strong acids, bases, and strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, organic or inorganic nitrogen compounds including traces of hydrogen cyanide

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

Chemical Name	LD50/LC50
Polydiamine	Oral LD50: Rat 242 mg/kg Dermal LD50: Rabbit 360 mg/kg
Amine compound	Oral LD50: Rat 4,290 mg/kg Dermal LD50: Rabbit 2500 µL/kg
Triethanolamine	Oral LD50: Rat 4,190 mg/kg Dermal LD50: Rabbit > 20,000 mg/kg
Amine compound	Oral LD50: Rat 1,080 mg/kg Inhalation LC50: Rat 70 mg/l /4 h
Amine compound	Oral LD50: Rat 2140 µL/kg Dermal LD50: Rabbit 880 µL/kg
Amine curing agent	Oral LD50: Rat 540 mg/kg Dermal LD50: Rabbit 1,494 mg/kg
Bisphenol A	Oral LD50: Rat 3,300 mg/kg Dermal LD50: Rabbit 3 mL/kg Inhalation LC50: Rat > 170 mg/m ³ /6 h

Germ cell mutagenicity: No classification proposed

Carcinogenicity: No classification proposed

Reproductive toxicity: Category 2 - Suspected of damaging fertility or the unborn child.

Components contributing to classification: Amine compound. Bisphenol A. Diol.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Chemical Name	Ecotoxicity
Polydiamine	N.D.
Amine compound	N.D.
Triethanolamine	<u>Fish:</u> Pimephales promelas 10,600 - 13,000 mg/196 h flow-through Pimephales promelas > 1,000 mg/196 h Static Lepomis macrochirus 450 - 1,000 mg/196 h Static <u>Plants:</u> Desmodemus subspicatus 216 mg/172 h Desmodemus subspicatus 169 mg/196 h
Amine compound	<u>Fish:</u> Poecilia reticulata 248 mg/196 h Static Poecilia reticulata 1,014 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 16 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 1,164 mg/172 h Pseudokirchneriella subcapitata 345.6 mg/196 h Desmodemus subspicatus 592 mg/196 h
Amine compound	<u>Fish:</u> Pimephales promelas 1,950 - 2,460 mg/196 h flow-through Poecilia reticulata > 1,000 mg/196 h semi-static Oncorhynchus mykiss ≥ 100 mg/196 h semi-static <u>Invertebrates:</u> Daphnia magna 32 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata 495 mg/172 h
Amine curing agent	N.D.
Bisphenol A	<u>Fish:</u> Pimephales promelas 3.6 - 5.4 mg/196 h flow-through Pimephales promelas 4.0 - 5.5 mg/196 h Static Oncorhynchus mykiss 4 mg/196 h Brachydanio rerio 9.9 mg/196 h Static <u>Invertebrates:</u> Daphnia magna 10.2 mg/148 h Daphnia magna 3.9 mg/148 h Daphnia magna 9.2 - 11.4 mg/148 h Static <u>Plants:</u> Pseudokirchneriella subcapitata 2.5 mg/196 h

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Disposal should be done in accordance with Federal (40CFR Part 261), state and local environmental control regulations. If waste is determined to be hazardous, use licensed hazardous waste transporter and disposal facility.

14. TRANSPORT INFORMATION

US DOT Road

Proper Shipping Name: Amines, liquid, corrosive, n.o.s.
Hazard Class: 8
SECONDARY HAZARD: None
UN/NA Number: 2735
Packing Group: III
Emergency Response Guide Number: 153

IATA Cargo

PROPER SHIPPING NAME: Amines, liquid, corrosive, n.o.s.
Hazard Class: 8
HAZARD CLASS: None
UN NUMBER: 2735
PACKING GROUP: III
EMS: 8L

IMDG

PROPER SHIPPING NAME: Amines, liquid, corrosive, n.o.s.
Hazard Class: 8
HAZARD CLASS: None
UN NUMBER: 2735
PACKING GROUP: III
EMS: F-A

The listed transportation classification applies to non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS:

SARA SECTION 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372.:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Weight % Less Than</u>
Bisphenol A	80-05-7	5.0 %

TOXIC SUBSTANCES CONTROL ACT:

INVENTORY STATUS

The chemical substances in this product are on the active TSCA Section 8 Inventory or exempt.

EXPORT NOTIFICATION

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:

None

16. OTHER INFORMATION

Under HazCom 2012 it is optional to continue using the HMIS rating system. It is important to ensure employees have been trained to recognize the different numeric ratings associated with the HazCom 2012 and HMIS schemes.

HMIS RATINGS - HEALTH: 3* FLAMMABILITY: 1 PHYSICAL HAZARD: 1

* - Indicates a chronic hazard; see Section 2

Revision: Section 1, Section 2, Section 9

Effective Date: 05/12/2021

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.