

IB ROOFING VERTIBOND
ADHESIVE 150635

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name	IB ROOFING VERTIBOND ADHESIVE
Product code	150635
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid, amber

WARNING! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. CAUSES EYE IRRITATION. MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE DERMATITIS AND BURNS. MAY CAUSE ALLERGIC SKIN REACTION.

Potential Health Effects

Routes of exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

Ingestion

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Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, blood-forming system, auditory system, eye. Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), cough, discomfort in the chest, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, visual disturbances, respiratory depression (slowing of the breathing rate), Blurred vision, difficult breathing, high blood sugar, allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), coma

Target Organs

This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible kidney effects, blood abnormalities, cataracts, anemia, nasal damage, kidney damage, lung damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: anemia, effects on hearing

Carcinogenicity

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency

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for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
ACETONE	67-64-1	>=30-<40%
METHYL ACETATE	79-20-9	>=30-<40%
BUTANOL NORMAL	71-36-3	>=1.5-<5%
TRIMETHYLBENZENE 1,2,4-	95-63-6	>=1.5-<5%
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	64742-95-6	>=1-<1.5%
CRESYLIC ACIDS	1319-77-3	>=0.1-<0.5%
ETHYL BENZENE	100-41-4	>=0.1-<0.5%

4. FIRST AID MEASURES**Eyes**

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water mist, Carbon dioxide (CO₂), Dry chemical

Hazardous combustion products

carbon dioxide and carbon monoxide, nitrogen oxides, various hydrocarbons

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Flammability Class for Flammable Liquids

Flammable Liquid Class IB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent

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from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

Environmental precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances. Keep containers closed when not in use. Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

ACETONE		67-64-1
ACGIH	time weighted average	500 ppm
ACGIH	Short term exposure limit	750 ppm
NIOSH	Recommended exposure limit (REL):	250 ppm
NIOSH	Recommended exposure limit (REL):	590 mg/m3
OSHA Z1	Permissible exposure limit	1,000 ppm
OSHA Z1	Permissible exposure limit	2,400 mg/m3

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METHYL ACETATE		79-20-9
ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	250 ppm
NIOSH	Recommended exposure limit (REL):	200 ppm
NIOSH	Recommended exposure limit (REL):	610 mg/m3
NIOSH	Short term exposure limit	250 ppm
NIOSH	Short term exposure limit	760 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	610 mg/m3
BUTANOL NORMAL		71-36-3
ACGIH	time weighted average	20 ppm
NIOSH	Ceiling Limit Value and Time Period (if specified):	50 ppm
NIOSH	Ceiling Limit Value and Time Period (if specified):	150 mg/m3
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	300 mg/m3
OSHA Z1A	Ceiling Limit Value:	50 ppm
OSHA Z1A	Ceiling Limit Value:	150 mg/m3
US CA OEL	Ceiling Limit Value:	50 ppm
US CA OEL	Ceiling Limit Value:	150 mg/m3
TRIMETHYLBENZENE 1,2,4-		95-63-6
NIOSH	Recommended exposure limit (REL):	25 ppm
NIOSH	Recommended exposure limit (REL):	125 mg/m3
ACGIH	time weighted average	25 ppm
OSHA Z1A	time weighted average	25 ppm
OSHA Z1A	time weighted average	125 mg/m3
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	25 ppm
US CA OEL	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):	125 mg/m3

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical

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concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	liquid
Form	No data
Colour	amber
Odour	No data
Boiling point/boilingrange	56.10 °C / 133.0 °F
pH	No data
Flash point	-4 °F / -20 °C, Seta closed cup
Evaporation rate	No data
Explosion limits	2.6 %(V) 16 %(V)

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Vapour pressure	307.96 hPa @ 77 °F / 25 °C
Vapour density	(>) 1 (AIR=1)
Density	0.93 g/cm ³ @ 77 °F / 25 °C 7.704 lb/gal @ 77 °F / 25 °C
Solubility	No data
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Incompatible products

acids, strong alkalis, strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, nitrogen oxides (NO_x), various hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

ACETONE	LD 50 Rat: 5,800 mg/kg
METHYL ACETATE	LD 50 Rat: > 5 g/kg
BUTANOL NORMAL	LD 50 Rat: 790 mg/kg

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TRIMETHYLBENZENE 1,2,4-	LD 50 Rat: 6 g/kg
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rat: > 5,600 mg/kg
CRESYLIC ACIDS	LD 50 Rat: 1,454 mg/kg
ETHYL BENZENE	LD 50 Rat: 3,500 mg/kg

Acute inhalation toxicity

ACETONE	LC 50 Rat: > 16000 ppm, 4 h
METHYL ACETATE	no data available
BUTANOL NORMAL	no data available
TRIMETHYLBENZENE 1,2,4-	LC 50 Rat: 18 g/m ³ , 4 h
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LC 50 Rat: > 10,200 mg/m ³ , 4 h
CRESYLIC ACIDS	no data available
ETHYL BENZENE	LC Lo Rat: 4000 ppm, 4 h

Acute dermal toxicity

ACETONE	LD 50 Rabbit: > 20,000 mg/kg
METHYL ACETATE	LD 50 Rabbit: > 5 g/kg
BUTANOL NORMAL	LD 50 Rabbit: 3,400 mg/kg
TRIMETHYLBENZENE 1,2,4-	no data available
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC	LD 50 Rabbit: > 4,000 mg/kg
CRESYLIC ACIDS	LD 50 Rabbit: 2,000 mg/kg
ETHYL BENZENE	LD 50 Rabbit: 15,433 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

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No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Destroy by liquid incineration in accordance with applicable regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

IMDG:

UN1133, ADHESIVES 3, II

IATA_P:

UN1133, Adhesives 3, II

IATA_C:

UN1133, Adhesives 3, II

CFR_ROAD:

UN1133, Adhesives 3, II

CFR_RAIL:

UN1133, Adhesives 3, II

CFR_INWTR:

UN1133, Adhesives 3, II

Dangerous goods descriptions (if indicated above) may not reflect package size, quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION

California Prop. 65

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

ETHYL BENZENE

ASHLAND
SAFETY DATA SHEET

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Version: 1.3

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The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).