
SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: EverGuard® TPO Bonding Adhesive
TRADE NAME: N/A
CHEMICAL NAME / SYNONYM: N/A
CHEMICAL FAMILY: N/A
MANUFACTURER: GAF
ADDRESS: 1 Campus Drive, Parsippany, NJ 07054
24 HOUR EMERGENCY PHONE: (CHEMTREC) 800-424-9300
INFORMATION ONLY: 800-766-3411
PREPARED BY: Corporate EHS
APPROVED BY: Corporate EHS

SECTION 2: HAZARD IDENTIFICATION

NFPA and HMIS RATINGS:

	NFPA Hazard Rating		HMIS Hazard Rating
Health	2	Health	2
Flammable	3	Flammable	3
Reactive	0	Reactive	0
Special Hazards	-	Personal Protection	X

GHS LABEL ELEMENTS:

GHS CLASSIFICATION: Flammable Liquid - Category 2
Eye Irritant - Category 2A
Skin Irritant - Category 2
Target Organ (SE) - Category 3
Target Organ (RE) - Category 2
Reproductive Toxicity - Category 2

GHS PICTOGRAMS: 

SIGNAL WORD: Danger

HAZARD STATEMENTS: Highly flammable liquid and vapor.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs (Neurologic: other (neuropsychological effects, vision)) through prolonged or repeated exposure if inhaled.

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion

SIGNS & SYMPTOMS OF EXPOSURE

EYES: Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

SKIN: May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

INGESTION: 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.

ACUTE HEALTH HAZARDS: 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), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, weakness, loss of coordination, confusion, irregular heartbeat, high blood sugar and coma.

CHRONIC HEALTH HAZARDS: This material can shorten the time of onset or worsens the liver and kidney damage induced by other chemicals. Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene. Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone. Overexposure to this material has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible kidney effects, blood abnormalities, liver abnormalities, nasal damage, respiratory tract damage (nose, throat, and airways), spleen damage, eye damage, and kidney damage, effects on hearing, testis damage, lung damage, and central nervous system damage. Overexposure to this material has been suggested as a cause of the following effects in humans: liver abnormalities, visual impairment, and kidney damage and central nervous system effects.

CARCINOGENICITY: Ethyl Benzene is classified as a 2B carcinogen (possibly carcinogenic to humans) by the International Agency for Research on Cancer

(IARC).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	% (BY WT)	OCCUPATIONAL EXPOSURE LIMITS		
			OSHA	ACGIH	OTHER
Toluene	108-88-3	37	200 ppm 300 ppm ceiling 500 ppm – max peak (10 mins.)	20 ppm	REL: 100 ppm 150 ppm STEL
Acetone	67-64-1	23	1000 ppm	500 ppm 750 ppm – STEL	REL: 250 ppm
Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	1.5	500 ppm	300 ppm	NE
N-Hexane	110-54-3	14	500 ppm	50 ppm	REL: 50 ppm
Methyl-3-Pentane	96-14-0	1.5	500 ppm	500 ppm	REL: 100 ppm
Methylcyclopentane	96-37-7	1.5	NE	NE	NE

NIOSH/C
E

NE = Not Established

SECTION 4: FIRST AID MEASURES

FIRST AID PROCEDURES

- 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. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.
- 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.
- 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.

**NOTES TO PHYSICIANS OR
FIRST AID PROVIDERS:**

Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (see Section 11 – Toxicological Information) when deciding whether to induce vomiting. This material has produced hyperglycemia and ketosis following substantial ingestion.

SECTION 5: FIRE FIGHTING PROCEDURES

SUITABLE EXTINGUISHING MEDIA:	Water spray, Dry chemical, Foam, Carbon dioxide (CO ₂).
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide, carbon monoxide, hydrogen chloride, phenols and various hydrocarbons.
RECOMMENDED FIRE FIGHTING PROCEDURES:	Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
UNUSUAL FIRE & EXPLOSION HAZARDS:	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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:	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 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.
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SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:	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.
OTHER PRECAUTIONS:	Store in closed containers in a dry, well-ventilated area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION:	Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure limits.
RESPIRATORY PROTECTION:	If workplace exposure limit(s) of product or any component is exceeded, a NIOSH-approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

EYE PROTECTION: Chemical splash goggles are recommended.

SKIN PROTECTION: Wear appropriate chemical resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

OTHER PROTECTIVE EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: Wash exposed skin prior to eating, drinking or smoking and at the end of each shift.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR:	liquid with an organic solvent odor		
FLASH POINT:	-20 °C	LOWER EXPLOSIVE LIMIT:	No Data
METHOD USED:	Cleveland Open Cup (COC)	UPPER EXPLOSIVE LIMIT:	No Data
EVAPORATION RATE:	No Data	BOILING POINT:	No Data
pH (undiluted product):	No Data	MELTING POINT:	No Data
SOLUBILITY IN WATER:	No Data	SPECIFIC GRAVITY:	No Data
RELATIVE DENSITY:	0.87	PERCENT VOLATILE:	No Data
VAPOR PRESSURE:	No Data	MOLECULAR WEIGHT:	No Data
VOC WITH WATER (LBS/GAL):	No Data	WITHOUT WATER (LBS/GAL):	No Data

SECTION 10: STABILITY AND REACTIVITY

THERMAL STABILITY: **STABLE** X **UNSTABLE**

CONDITIONS TO AVOID (STABILITY): None known.

INCOMPATIBILITY (MATERIAL TO AVOID): Acids, strong alkalis, strong mineral acids, strong oxidizing agents, halogens.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon dioxide, carbon monoxide, phenols and various hydrocarbons.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Acute Oral Toxicity

Toluene – LD50 Rat: 636 mg/kg

Acetone – LD50 Rat: 5,800 mg/kg

Solvent Naphtha (Petroleum), Light Aliphatic – LD50 Rat: 8,000 mg/kg

Acute Inhalation Toxicity (4 hours)

Toluene – LC50 Rat: 8,000 ppm

Acetone – LC50 Rat: 16,000 ppm

Solvent Naphtha (Petroleum), Light Aliphatic – LC50 Rat: 3,400 ppm

Acute Dermal Toxicity

Toluene – LD50 Rabbit: 12,124 mg/kg

Acetone – LD50 Rabbit: 20,000 mg/kg

Solvent Naphtha (Petroleum), Light Aliphatic – LD50 Rat: 4,000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Ecotoxicology Assessment

Acute aquatic toxicity: Acute aquatic toxicity Category 2; Toxic to aquatic life.

Chronic aquatic toxicity: Chronic aquatic toxicity Category 3; Harmful to aquatic life with long lasting effects.

Components:

TOLUENE:

Toxicity to fish: LC50 (Oncorhynchus kisutch (coho salmon)): 5.5 mg/l

Exposure time: 96 h

Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Water flea (Ceriodaphnia dubia)): 3.78 mg/l

Exposure time: 48 h

Remarks: Mortality

Toxicity to algae:

EC50 (Pseudokirchneriella subcapitata (microalgae)): > 433 mg/l

End point: Growth inhibition

Exposure time: 96 h

NOEC (Scenedesmus quadricauda (Green algae)): > 400 mg/l

Toxicity to fish (Chronic toxicity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 1.39 mg/l

Exposure time: 40 d

Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

:
NOEC (Water flea (*Ceriodaphnia dubia*)): 0.74 mg/l
Exposure time: 7 d

ACETONE:

Toxicity to fish

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 4,740 - 6,330 mg/l

Exposure time: 96 h

Test Type: static test

LC50 (*Pimephales promelas* (fathead minnow)): 8,733 - 9,482 mg/l

Exposure time: 96 h

Test Type: flow-through test

Toxicity to algae

NOEC (*Microcystis aeruginosa* (blue-green algae)): 530 mg/l

Exposure time: 8 d

Test Type: static test

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

:

NOEC (*Daphnia magna* (Water flea)): 2,112 mg/l

Exposure time: 28 d

Test Type: flow-through test

N-HEXANE:

Toxicity to algae

EL50 (*Pseudokirchneriella subcapitata* (green algae)): 9.29 mg/l

Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity

Toxic to aquatic life.

Chronic aquatic toxicity

Toxic to aquatic life with long lasting effects.

METHYL-3-PENTANE:

Ecotoxicology Assessment

Acute aquatic toxicity

Toxic to aquatic life.

Chronic aquatic toxicity

Toxic to aquatic life with long lasting effects.



SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: This product, as supplied, is regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. If discarded in its purchased form, this product is a RCRA hazardous waste. It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or residue of the product remains classified a hazardous waste as per 40 CFR 261, Subpart C. State or local regulations may also apply if they differ from the federal regulation.

RCRA HAZARD CLASS: D001, Ignitable Hazardous Waste

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT TRANSPORTATION

PROPER SHIPPING NAME: Adhesives, 3, UN1133, II
HAZARD CLASS: 3
ID NUMBER: UN 1133
PACKING GROUP: II
LABEL STATEMENT: N/A
OTHER: N/A

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA: This product and its components are listed on the TSCA 8(b) inventory.

CERCLA: CERCLA Hazardous Substances (40 CFR 302)

Reportable Quantity – Components

Toluene: 108-88-3 1000 lbs
 Acetone: 67-64-1 5000 lbs
 Ethyl Benzene: 100-41-4 1000 lbs

SARA

311/312 HAZARD CATEGORIES: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

313 REPORTABLE INGREDIENTS: Toluene 37.66%
 N-Hexane 14.75
 Ethyl Benzene < 1%

CALIFORNIA PROPOSITION 65: This product contains a chemical known to the state of California to cause cancer and birth defects, or other reproductive harm. Cancer: Ethyl Benzene; Reproductive: Toluene.

Other state regulations may apply. Check individual state requirements. The following components appear on one or more of the following state hazardous substances lists:

Chemical Name	CAS #	CA	MA	MN	NJ	PA	RI
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes	Yes
Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	Yes	Yes	Yes	Yes	Yes	Yes
Phenolic Resin	-	No	No	No	No	No	No

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: None

DATE OF PREVIOUS SDS: September 2014

CHANGES SINCE PREVIOUS SDS: Update SDS based on manufacturers revised SDS.

This information relates to the specific material designated and may not be valid for such material used on combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation,

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