



SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: EverGuard TPO 3 Square Low VOC 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
	2		2
	3		3
	0		0
Special Hazards	-	Personal Protection	X

GHS LABEL ELEMENTS:

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

GHS PICTOGRAMS:



SIGNAL WORD: Danger

PRECAUTIONARY STATEMENTS:

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

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

PRIMARY ROUTE OF EXPOSURE: Skin Absorption, Inhalation, and Ingestion

SIGNS & SYMPTOMS OF EXPOSURE

EYES: This material is an eye irritant. Contact with the liquid or exposure to mist or vapor may cause stinging, redness and swelling.

SKIN: This material may cause mild skin irritation. Prolonged contact may cause redness, burning and drying or cracking of the skin. Skin absorption may produce systemic toxicity.

INGESTION: Harmful or fatal if swallowed and/or vomiting occurs. Can enter lungs and cause damage or lung inflammation. Do not induce vomiting.

INHALATION: High concentrations of vapor or mist may cause irritation of the nose and throat and signs of nervous system depression. Can cause headaches, drowsiness, dizziness, and loss of coordination. May affect liver, kidneys, and respiratory system.

ACUTE HEALTH HAZARDS: See above.

CHRONIC HEALTH HAZARDS: Respiratory or lung disorders may be aggravated by exposure to this material.

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
Tert-Butyl Acetate	540-88-5	40-50	200 ppm	200 ppm	REL: 200 ppm
Acetone	67-64-1	20-30	1000 ppm	20 ppm	REL: 100 ppm
Toluene	108-88-3	30-45	200 ppm	20 ppm	REL: 100 ppm
Magnesium Oxide	1309-48-4	1-1.5	15 mg/m ³	10 mg/m ³	REL: NE

NE= Not Established

SECTION 4: FIRST AID MEASURES**FIRST AID PROCEDURES**

EYES: Flush eyes with water for 15 minutes. If irritation or reddening persists, call physician.

SKIN: Remove contaminated clothes. Wash exposed areas with soap and water. If redness or swelling develops, seek medical attention.

INHALATION: Move the individual to an area with fresh air or provide oxygen immediately, call physician.

INGESTION: If swallowed, contact physician immediately. Do not induce vomiting. This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 5: FIRE FIGHTING PROCEDURES

SUITABLE EXTINGUISHING MEDIA: Water, dry chemical, CO₂, and foam.

HAZARDOUS COMBUSTION PRODUCTS: Produces acrid smoke and fumes, alcohols, aldehydes, carbon dioxide and carbon monoxide, hydrocarbons, hydrogen chloride, organic acids, phenols, and magnesium oxide fumes.

RECOMMENDED FIRE FIGHTING PROCEDURES:

Use self-contained breathing apparatus and protective clothing.

UNUSUAL FIRE & EXPLOSION HAZARDS:

Material is flammable and may be ignited by flames, sparks, heat or other sources of ignition. Water may be ineffective in fighting the fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Dam up area to prevent spreading of material. Provide ventilation. Extinguish all open flames or electrical sparks. Dry up the compound using an absorbent material.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

Store in a well ventilated area at temperatures between 40 - 80° F. Avoid open flames, electrical spark, and static electricity. Container should be grounded when pouring.

OTHER PRECAUTIONS:

The container is hazardous when empty. Partially full or emptied container may contain explosive vapors. Do not cut, weld or solder on or near the container. Do not reuse "empty" container without commercial cleaning or reconditioning.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS / VENTILATION:

Provide sufficient mechanical ventilation to maintain exposure below exposure limits.

RESPIRATORY PROTECTION:

Use NIOSH approved organic vapor cartridge type respirator if there is potential to exceed exposure limit(s). Observe OSHA regulations for respiratory use (29 CFR 1910.134).

EYE PROTECTION:

Safety goggles or safety glasses with side shields.

SKIN PROTECTION:

Wear appropriate impermeable gloves to prevent skin contact.

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:	Amber solution with solvent odor.		
FLASH POINT:	30° F	LOWER EXPLOSIVE LIMIT:	No Data
METHOD USED:	TCC	UPPER EXPLOSIVE LIMIT:	No Data
EVAPORATION RATE:	No Data	BOILING POINT:	132° F
pH (undiluted product):	No Data	MELTING POINT:	No Data
SOLUBILITY IN WATER:	Insoluble	SPECIFIC GRAVITY:	0.93 g/cm ³
VAPOR DENSITY:	No Data	PERCENT VOLATILE:	No Data
VAPOR PRESSURE:	307 hPa	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):**

Avoid open flames, electrical spark, and static electricity.

INCOMPATIBILITY (MATERIAL TO AVOID):

Acids, alkalis, amines, ammonia, chlorine trifluoride, halogens, nitrates, oxidizing agents, peroxides, phosphorus pentachloride, reducing agents, strong alkalis.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Produces acrid smoke and fumes, alcohols, aldehydes, carbon dioxide and carbon monoxide, hydrocarbons, hydrogen chloride, organic acids, phenols, and magnesium oxide fumes.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

Information on likely routes
of exposure:

Inhalation
Skin contact
Eye Contact
Ingestion

Acute toxicity

Not classified based on available information.

Components:**TERT-BUTYL ACETATE:****Acute oral toxicity**

LD50 (Rat, male): 4,100 mg/kg

Acute inhalation toxicity

LC50 (Rat): 4211 ppm

Exposure time: 6 h

Test atmosphere: vapor

Assessment: The component/mixture is classified as acute inhalation toxicity, category 4.

Acute dermal toxicity

LD50 (Rabbit): > 19,800 mg/kg

ACETONE:**Acute oral toxicity**

LD50 (Rat, female): 5,800 mg/kg

Acute inhalation toxicity

LC50 (Rat, female): 76 mg/l

Exposure time: 4 h

Acute dermal toxicity

LD50 (Rabbit): > 7,426 mg/kg

TOLUENE:**Acute oral toxicity**

LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity

LC50 (Rat): 28.1 mg/l

Exposure time: 4 h

Test atmosphere: vapor

Acute dermal toxicity

LD50 (Rabbit): 12,124 mg/kg

MAGNESIUM OXIDE:**Acute oral toxicity**

LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: Repeated exposure may cause skin dryness or cracking.
Remarks: May cause skin irritation in susceptible persons.

Components:**TERT-BUTYL ACETATE:**

Result: Slight, transient irritation

ACETONE:

Result: Slight, transient irritation

TOLUENE:

Result: Irritating to skin.

MAGNESIUM OXIDE:

Result: Slight, transient irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Remarks: Vapors may cause irritation to the eyes, respiratory system and the skin., Causes serious eye irritation.

Components:**TERT-BUTYL ACETATE:**

Result: Slight, transient irritation

ACETONE:

Result: Irritating to eyes.

TOLUENE:

Result: Irritating to eyes.

MAGNESIUM OXIDE:

Result: Slight, transient irritation

Respiratory or skin sensitization

Skin sensitization: Not classified based on available information.

Respiratory sensitization: Not classified based on available information.

Components:**TERT-BUTYL ACETATE:**

Species: Guinea pig

Assessment: Did not cause sensitization on laboratory animals.

Method: Buehler Test

Germ cell mutagenicity
Not classified based on available information.

Components:**TERT-BUTYL ACETATE:**

Genotoxicity in vitro

:

Test Type: Ames test

Test species: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)

Result: negative

Test Type: Chromosome aberration test in vitro

Test species: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Genotoxicity in vivo

Test Type: in vivo assay

Test species: Rat (male and female)

Cell type: Bone marrow

Application Route: Inhalation

Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Components:**TOLUENE:**

Reproductive toxicity - Assessment

Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

May cause respiratory irritation.

May cause drowsiness or dizziness.

Components:**TERT-BUTYL ACETATE:**

Exposure routes: Ingestion

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

Exposure routes: Inhalation

Target Organs: Respiratory Tract

Assessment: May cause respiratory irritation.

ACETONE:

Exposure routes: Inhalation

Target Organs: Nervous system

Assessment: May cause drowsiness or dizziness.

TOLUENE:

Exposure routes: Inhalation

Target Organs: Central nervous system
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs (Neurologic: other (neuropsychological effects, auditory dysfunction and effects on color vision)) through prolonged or repeated exposure if inhaled.

Components:

TOLUENE:

Exposure routes: Inhalation

Target Organs: Neurologic: other (neuropsychological effects, auditory dysfunction and effects on color vision)

Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

Components:

ACETONE:

May be harmful if swallowed and enters airways.

TOLUENE:

May be fatal if swallowed and enters airways.

Further information

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.,
Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:**Ecotoxicity****Components:****TERT-BUTYL ACETATE:**

Toxicity to fish

LC50 (Oncorhynchus mykiss (rainbow trout)): 240 mg/l

Exposure time: 96 h

Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 350 mg/l

Exposure time: 48 h

Test Type: static test

Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae

ErC50 (*Pseudokirchneriella subcapitata* (microalgae)): 16 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

NOEC (*Pseudokirchneriella subcapitata* (microalgae)): 2.3 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

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

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

End point: Growth inhibition

Exposure time: 7 d

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

No data available

Persistence and degradability

Components:

TERT-BUTYL ACETATE:

Biodegradability

aerobic

Result: Not readily biodegradable.

Biodegradation: 50 %

Exposure time: 28 d

Method: OECD Test Guideline 301D

ACETONE:

Biodegradability

Result: Readily biodegradable.

Biodegradation: 90.9 %

Exposure time: 28 d

Method: OECD Test Guideline 301B

TOLUENE:

Biodegradability

Result: Readily biodegradable.

MAGNESIUM OXIDE:

Biodegradability

Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

No data available

Bioaccumulative potential components:

TERT-BUTYL ACETATE:

Partition coefficient: n-octanol/water

log Pow: 1.76

ACETONE:

Partition coefficient: n-octanol/water

log Pow: -0.24

TOLUENE:

Bioaccumulation

Species: Leuciscus idus (Golden orfe)

Bioconcentration factor (BCF): 94

Exposure time: 3 d

Concentration: 0.05 mg/l

Method: Not reported

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.

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT TRANSPORTATION

PROPER SHIPPING NAME:	Adhesive
HAZARD CLASS:	3
ID NUMBER:	UN1133
PACKING GROUP:	II
LABEL STATEMENT:	N/A
OTHER:	N/A

IATA

PROPER SHIPPING NAME: Adhesive
HAZARD CLASS: 3
ID NUMBER: UN1133
PACKING GROUP: II
LABEL STATEMENT: N/A
OTHER: N/A

IMDG

PROPER SHIPPING NAME: Adhesive
HAZARD CLASS: 3
ID NUMBER: UN1133
PACKING GROUP: II
LABEL STATEMENT: N/A
OTHER: N/A

Marine Pollutant: No

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

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

CERCLA: None

SARA

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

313 REPORTABLE INGREDIENTS: Toluene 108-88-3 5.94%

CALIFORNIA PROPOSITION 65: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.
 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

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: N/A

DATE OF PREVIOUS SDS: May 2015

CHANGES SINCE PREVIOUS SDS: Revised GHS classifications, hazard statements, tox data and ingredient list.

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, warranty or guarantee, expressed or implied, is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license of valid patents.