GAF
Safety Data Sheet
SDS # 1079C
SDS Date: December 2014

SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME:	EverGuard® 1121 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
Acute Toxicity - Category 4
Target Organ (SE) - Category 3
Target Organ (RE) - Category 2
Aspiration Toxicity - Category 1
Reproductive Toxicity - Category 2
Mutagenicity - Category 1B

Carcinogen - Category 1B
Hazardous to the Aquatic Environment (acute) - Category 1
Hazardous to the Aquatic Environment (chronic) - Category 2

GHS PICTOGRAMS:

SIGNAL WORD: Danger

HAZARD STATEMENTS:
Highly flammable liquid and vapor
May cause damage to organs through prolonged or repeated exposure
Repeated exposure may cause skin dryness and cracking
Causes skin irritation
Causes serious eye irritation
Harmful if inhaled
May cause drossiness or dizziness
Suspected of damaging fertility or the unborn child
May be fatal if swallowed and enters airways
May cause genetic defects
May cause cancer
Very toxic to aquatic life with long lasting effects

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:

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

SIGNS & SYMPTONS 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: metallic taste, 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 (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Prolonged and repeated exposure to n-hexane may cause peripheral neuropathy by damaging peripheral nerve tissue (that of the arms and legs) and result in muscular weakness and loss of sensation. Prolonged and repeated inhalation of high levels of mixed isomers of hexane resulted in kidney damage in male rats. The effects observed are the same as those seen in male rats exposed to other hydrocarbons. The mechanism by which these chemicals cause the characteristic kidney toxicity is unique to the male rat and the kidney effects are not expected to occur in man. 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 (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, liver abnormalities, nasal damage, respiratory tract damage (nose, throat, and airways), spleen damage, eye damage, kidney damage, effects on hearing, testis damage, lung damage, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: liver abnormalities, visual impairment, kidney damage and central nervous system effects

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 for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). 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. Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans. 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

			OCCUPATIONAL EXPOSURE LIMITS		
CHEMICAL NAME	**CAS #**	**% (BY WT)**	**OSHA**	**ACGIH**	**OTHER**
Toluene	108-88-3	30 – 40	200 ppm 300 ppm – ceiling	20 ppm	REL: 100 ppm
Acetone	67-64-1	20 – 30	1000 ppm	500 ppm 750 ppm – STEL	REL: 250 ppm
Solvent Naphtha (Petroleum), Light Aliphatic	64742-89-8	5 – 10	300 ppm	NE	NE
n-Hexane	110-54-3	5 – 10	500 ppm	50 ppm	REL: 50 ppm
Cyclohexane	110-82-7	1.5 – 5	300 ppm	100 ppm	REL: 300 ppm
n-Heptane	142-82-5	1 – 1.5	500 ppm	400 ppm 500 ppm – STEL	REL: 85 ppm
Ethyl Benzene	100-41-4	0.1 – 0.5	100 ppm	100 ppm	REL: 100 ppm

NE = Not Established

SECTION 4: FIRST AID MEASRURES

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 (or a component) has produced hyperglycemia and ketosis following substantial ingestion.

SECTION 5: FIRE FIGHTING PROCEDURES

SUITABLE EXTINGUISHING MEDIA:	Water spray, Dry powder, Foam, Carbon dioxide (CO2).
HAZARDOUS COMBUSTION PRODUCTS:	Carbon dioxide and carbon monoxide, phenols, various hydrocarbons.
RECOMMENDED FIRE FIGHTING PROCEDURES:	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).
UNUSUAL FIRE & EXPLOSION HAZARDS:	Flammable Liquid Class IB

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.

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 TLV(s).

RESPIRATORY PROTECTION: If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), 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 (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

SKIN PROTECTION: Wear resistant gloves (consult your safety equipment supplier). 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.

EXPOSURE GUIDELINES: N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR:	Liquid, yellow		
FLASH POINT:	(<)0 °F / -18 °C	**LOWER EXPLOSIVE LIMIT:**	1 %(V)
METHOD USED:	Seta closed cup	**UPPER EXPLOSIVE LIMIT:**	12.8 %(V)
EVAPORATION RATE:	No data	**BOILING POINT:**	56 °C / 133 °F@ 1,013.23 hPa
pH (undiluted product):	No data	**MELTING POINT:**	No data

SOLUBILITY IN WATER:	No data	**SPECIFIC GRAVITY:**	0.873 g/cm3 @ 77 °F / 25 °C 7.3 lb/gal @ 77 °F / 25 °C
VAPOR DENSITY:	No data	**PERCENT VOLATILE:**	No data
VAPOR PRESSURE:	307.96 hPa @ 77 °F / 25 °C	**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.

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

HAZARDOUS POLYMERIZATION: Product will not undergo hazardous polymerization.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: **Acute oral toxicity**

Toluene LD 50 Rat: 2,600 - 7,500 mg/kg

Acetone LD 50 Rat: 5,800 mg/kg

Solvent Naphtha (Petroleum),Light Aliphatic LD 50 Rat: > 8,000 mg/kg

n-Hexane LD 50 Rat: 25 g/kg

Cyclohexane LD 50 Mouse: 1,300 mg/kg LD 50 Rat: 29,820 mg/kg

n-Heptane LD 50 Rat: > 15,000 mg/kg

Ethyl Benzene LD 50 Rat: 3,500 mg/kg

Acute inhalation toxicity

Toluene LC 50 Rat: 8000 ppm, 4 h

Acetone LC 50 Rat: > 16000 ppm, 4 h

Solvent Naphtha (Petroleum),Light Aliphatic LC 50 Rat: 3400 ppm, 4 h

n-Hexane LC 50 Rat: 48000 ppm, 4 h

Cyclohexane LC 50 Rat: > 4044 ppm,

n-Heptane LC 50 Rat: 103 g/m3 , 4 h

Ethyl Benzene LC Lo Rat: 4000 ppm, 4 h

Acute dermal toxicity

Toluene LD 50 Rabbit: 12,124 mg/kg

Acetone LD 50 Rabbit: > 20,000 mg/kg

Solvent Naphtha (Petroleum),Light Aliphatic LD 50 Rat: > 4,000 mg/kg

n-Hexane LD 50 Rabbit: > 1.3 g/kg

Cyclohexane LD 50 Rabbit: > 2.0 g/kg

n-Heptane LD 50 Rabbit: > 2,000 mg/kg

Ethyl Benzene LD 50 Rabbit: 15,433 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No information available.

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

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA: All components are listed on the TSCA inventory.

CERCLA: CERCLA Hazardous Substances (40 CFR 302)

Reportable Quantity – Components

Toluene: 108-88-3, 1000 lbs
Acetone: 67-64-1, 5000 lbs
n-Hexane: 110-54-3, 5000 lbs
Cyclohexane: 110-82-7, 1000 lbs
Ethyl Benzene: 100-41-4, 1000 lbs

SARA:

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

313 REPORTABLE INGREDIENTS: Toluene 108-88-3, 36.8%
n-Hexane 110-54-3, 6.1%
Cyclohexane 110-82-7, 1.6%
Ethyl Benzene 100-41-4, 0.3%

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, Benzene, Formaldehyde, Lead Oxide, Cadmium Oxide. Reproductive: Toluene, Benzene, Lead Oxide, Cadmium Oxide.

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	No	No	No	No	No	No
n-Hexane	110-54-3	Yes	Yes	Yes	Yes	Yes	Yes
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	Yes	Yes
n-Heptane	142-82-5	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl Benzene	100-41-4	Yes	Yes	Yes	Yes	Yes	Yes

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: None

DATE OF PREVIOUS SDS: May 2013

CHANGES SINCE PREVIOUS SDS: Headquarters Address Change

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.