SAFETY DATA SHEET

1. Identification

Material name: TPA SINGLE PLY BONDING ADHESIVE 5 GL
Material: 505400 805

Recommended use and restriction on use

Recommended use: Coatings
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
WATERPROOFING TECHNOLOGIES INC.
3735 Green road
Beachwood OH 44122
US

Contact person:	EH&S Department
Telephone:	
Emergency telephone number:	1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids	Category 2

Health Hazards

Skin Corrosion/Irritation	Category 2
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B
Toxic to reproduction	Category 2

Unknown toxicity - Health

Acute toxicity, oral	20 %
Acute toxicity, dermal	20 %
Acute toxicity, inhalation, vapor	47.75 %
Acute toxicity, inhalation, dust or mist	100 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 3

Unknown toxicity - Environment

Acute hazards to the aquatic environment	40 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
Highly flammable liquid and vapor.
Causes skin irritation.
May cause genetic defects.
May cause cancer.
Suspected of damaging fertility or the unborn child.
Harmful to aquatic life.

Precautionary Statements

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Response: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Take off contaminated clothing. In case of fire: Use … to extinguish.

Storage: Store in well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*

Toluene	108-88-3	25 - <50%
Acetone	67-64-1	20 - <50%
Aliphatic Naphtha (Light aliphatic naphtha)	64742-89-8	10 - <20%
Ethylbenzene	100-41-4	0.1 - <1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion: Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.

Inhalation: Move to fresh air.

Skin Contact: Take off immediately all contaminated clothing. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Most important symptoms/effects, acute and delayed

Symptoms: Respiratory tract irritation. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Avoid water in straight hose stream; will scatter and spread fire.

Specific hazards arising from the chemical: Vapors may travel considerable distance to a source of ignition and flash back. Vapors may cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground and bond container and receiving equipment. Take precautionary measures against static discharges. Avoid contact with skin. Wash hands thoroughly after handling. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up. Store in a well-ventilated place. Store in a cool place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Toluene	TWA	20 ppm	US. ACGIH Threshold Limit Values (2011)
	TWA	200 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	Ceiling	300 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
	MAX. CONC	500 ppm	US. OSHA Table Z-2 (29 CFR 1910.1000) (02 2006)
Acetone	TWA	250 ppm	US. ACGIH Threshold Limit Values (03 2015)
	STEL	500 ppm	US. ACGIH Threshold Limit Values (03 2015)
	PEL	1,000 ppm 2,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aliphatic Naphtha (Light aliphatic naphtha)	PEL	100 ppm 400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
Ethylbenzene	TWA	20 ppm	US. ACGIH Threshold Limit Values (2011)

	PEL	100 ppm 435 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Toluene	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Toluene	TWA	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Toluene	TWA	50 ppm 188 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Acetone	STEL	500 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	250 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Acetone	TWA	500 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	750 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Acetone	STEL	1,000 ppm 2,380 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	TWA	500 ppm 1,190 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Aliphatic Naphtha (Light aliphatic naphtha)	TWA	400 ppm 1,590 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
Ethylbenzene	TWA	20 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Ethylbenzene	TWA	20 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Ethylbenzene	TWA	100 ppm 434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
	STEL	125 ppm 543 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Biological Limit Values

Chemical Identity	Exposure Limit Values	Source
Toluene (o-Cresol, with hydrolysis: Sampling time: End of shift.)	0.3 mg/g (Creatinine in urine)	ACGIH BEI (03 2013)
Toluene (toluene: Sampling time: Prior to last shift of work week.)	0.02 mg/l (Blood)	ACGIH BEI (03 2013)
Toluene (toluene: Sampling time: End of shift.)	0.03 mg/l (Urine)	ACGIH BEI (03 2013)
Acetone (acetone: Sampling time: End of shift.)	25 mg/l (Urine)	ACGIH BEI (03 2015)
Ethylbenzene (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEI (02 2014)

Appropriate Engineering Controls: Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Use explosion-proof ventilation equipment. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide easy access to water supply and eye wash facilities.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. When using do not smoke. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	cream or amber-colored
Odor:	Mild petroleum/solvent
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	56 °C 133 °F
Flash Point:	-20 °C -4 °F
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No

Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.

Vapor pressure:	185 hPa
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	0.876
Solubility(ies)	
Solubility in water:	Practically Insoluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Heat, sparks, flames.
Incompatible Materials:	Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Causes skin irritation.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	Not classified for acute toxicity based on available data.
Specified substance(s):	
Toluene	LD 50 (Rat): 5,580 mg/kg
Acetone	LD 50 (Rat): 5,800 mg/kg
Aliphatic Naphtha (Light aliphatic naphtha)	LD 50 (Rat): > 5,000 mg/kg
Ethylbenzene	LD 50 (Rat): 3,500 mg/kg

Dermal

Product:	ATEmix: 10,666.67 mg/kg

Inhalation

Product:	ATEmix: 29.71 mg/l

Repeated dose toxicity

Product:	No data available.

Skin Corrosion/Irritation

Product:	No data available.
Specified substance(s):	
Toluene	in vivo (Rabbit): Irritating Experimental result, Key study
Acetone	in vivo (Rabbit): Not irritant Experimental result, Supporting study
Aliphatic Naphtha (Light aliphatic naphtha)	in vivo (Rabbit): Irritating Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product:	No data available.
Specified substance(s):	
Toluene	Rabbit, 24 - 72 hrs: Not irritating
Acetone	Rabbit, 24 hrs: Minimum grade of severe eye irritant

Aliphatic Naphtha (Light aliphatic naphtha)	Rabbit, 24 - 72 hrs: Not irritating
Ethylbenzene	Rabbit, 7 d: Slightly irritating

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
Product: May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Ethylbenzene	Overall evaluation: Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
No carcinogenic components identified

Germ Cell Mutagenicity

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:	No data available.
Specified substance(s):	
Toluene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 20.5 - 23.8 mg/l Mortality
Acetone	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 5,490 - 7,030 mg/l Mortality
Ethylbenzene	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 7.5 - 11 mg/l Mortality

Aquatic Invertebrates

Product:	No data available.
Specified substance(s):	
Toluene	LC 50 (Water flea (Daphnia magna), 24 h): 240 - 420 mg/l Mortality
Acetone	LC 50 (Water flea (Daphnia magna), 24 h): 10 mg/l Mortality EC 50 (Water flea (Daphnia magna), 48 h): 21,600 - 23,900 mg/l Intoxication LC 50 (Scud (Gammarus fasciatus), 96 h): > 100 mg/l Mortality LC 50 (Asiatic clam (Corbicula manilensis), 96 h): > 20,000 mg/l Mortality LC 50 (Water flea (Daphnia magna), 96 h): > 100 mg/l Mortality
Ethylbenzene	EC 50 (Water flea (Daphnia magna), 48 h): 1.37 - 4.4 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Specified substance(s):	
Toluene	LOAEL (Oncorhynchus kisutch, 40 d): 2.77 mg/l Experimental result, Key study NOAEL (Pimephales promelas, 32 d): 4 mg/l Experimental result, Supporting study LOAEL (Pimephales promelas, 32 d): 6 mg/l Experimental result, Supporting study NOAEL (Oncorhynchus kisutch, 40 d): 1.39 mg/l Experimental result, Key study
Aliphatic Naphtha (Light aliphatic naphtha)	NOAEL (Daphnia magna, 21 d): 2.6 mg/l Other, Key study NOAEL (Pimephales promelas, 14 d): 2.6 mg/l Experimental result, Supporting study LL 50 (Pimephales promelas, 14 d): 5.2 mg/l Experimental result, Supporting study EC 50 (Daphnia magna, 21 d): 10 mg/l Other, Key study

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):

Toluene	Green algae (Selenastrum capricornutum), Bioconcentration Factor (BCF): 3,016 (Static)

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):

Toluene	Log Kow: 2.73
Acetone	Log Kow: -0.24
Ethylbenzene	Log Kow: 3.15

Mobility in soil: No data available.

Other adverse effects: Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

UN1133, ADHESIVES, 3, PG II

CFR / DOT:

UN1133, Adhesives, 3, PG II

IMDG:

UN1133, ADHESIVES, 3, PG II

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Toluene	1000 lbs.
Acetone	5000 lbs.
Ethylbenzene	1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

Chemical Identity	Reportable quantity
Toluene	1000 lbs.
Acetone	5000 lbs.
Ethylbenzene	1000 lbs.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Toluene	10000 lbs
Acetone	10000 lbs
Aliphatic Naphtha (Light aliphatic naphtha)	10000 lbs
Ethylbenzene	10000 lbs

SARA 313 (TRI Reporting)

Chemical Identity
Toluene
Ethylbenzene

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

Toluene	Developmental toxin. 09 2011
Ethylbenzene	Carcinogenic. 09 2011

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Toluene
Acetone
Aliphatic Naphtha (Light aliphatic naphtha)
Ethylbenzene

US. Massachusetts RTK - Substance List

Chemical Identity
Toluene
Acetone
Aliphatic Naphtha (Light aliphatic naphtha)

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Toluene
Acetone
Aliphatic Naphtha (Light aliphatic naphtha)

US. Rhode Island RTK

Chemical Identity
Toluene
Acetone
Aliphatic Naphtha (Light aliphatic naphtha)

International regulations

Montreal protocol
not applicable

Stockholm convention
not applicable

Rotterdam convention
not applicable

Kyoto protocol
not applicable

VOC:

Regulatory VOC (less water and exempt solvent)	:	613 g/l
VOC Method 310	:	52.50 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Mexico INSQ:	One or more components in this product are not listed on or exempt from the Inventory.
Ontario Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Taiwan Chemical Substance Inventory:	One or more components in this product are not listed on or exempt from the Inventory.

16.Other information, including date of preparation or last revision

Revision Date:	01/17/2017
Version #:	1.1
Further Information:	No data available.
Disclaimer:	For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.