

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Propyleneimine, Stabilized
 Product form : Substance

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Dixie Chemical Company Inc.
 10601 Bay Area Blvd
 Pasadena TX 77507
 Phone: 281-474-3271
 Email: msds@dixiechemical.com

1.4. Emergency telephone number

CHEMTREC®: (800) 424-9300 Domestic, (703) 527-3887 International

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

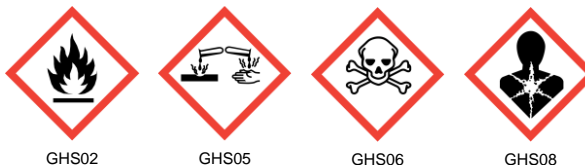
GHS-US classification

Flam. Liq. 2	H225
Acute Tox. 2 (Oral)	H300
Acute Tox. 1 (Dermal)	H310
Acute Tox. 2 (Inhalation:vapour)	H330
Eye Dam. 1	H318
Carc. 1B	H350

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapour
 H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled
 H318 - Causes serious eye damage
 H350 - May cause cancer

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
 P233 - Keep container tightly closed
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical, lighting, ventilating equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P260 - Do not breathe fume, mist, vapours
 P262 - Do not get in eyes, on skin, or on clothing
 P264 - Wash hands, forearms and face thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear eye protection, face protection, protective clothing, protective gloves
 P284 - [In case of inadequate ventilation] wear respiratory protection
 P301+P310 - IF SWALLOWED: Immediately call a doctor
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P308+P313 - If exposed or concerned: Get medical advice/attention
 P310 - Immediately call a doctor
 P320 - Specific treatment is urgent (see first aid instructions on this label)
 P330 - Rinse mouth
 P361 - Take off immediately all contaminated clothing
 P363 - Wash contaminated clothing before reuse
 P370+P378 - In case of fire: Use carbon dioxide (CO₂), alcohol resistant foam, dry extinguishing powder to extinguish

P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name	Product identifier	%
Propyleneimine	(CASRN) 75-55-8	95 - 100
Xylenes (o-, m-, p- isomers) (process impurity)	(CASRN) 1330-20-7	0.1 - 1
Allylamine (process impurity)	(CASRN) 107-11-9	0.1 - 1
Chemical components disclosed above are those requiring disclosure in accordance with the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)		

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.
- First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.
- First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Fatal if swallowed. Fatal if inhaled. Fatal in contact with skin. Causes serious eye damage. May cause cancer.
- Symptoms/injuries after inhalation : Fatal if inhaled.
- Symptoms/injuries after skin contact : Fatal in contact with skin.
- Symptoms/injuries after eye contact : Causes serious eye damage.
- Symptoms/injuries after ingestion : Fatal if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Dry chemical. Alcohol-resistant foam. carbon dioxide (CO₂).
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable liquid and vapour.

5.3. Advice for firefighters

- Firefighting instructions : Use cold water spray to cool fire-exposed containers to minimize risk of rupture.
- Protection during firefighting : Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ventilate area. Evacuate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

- Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Wear suitable protective clothing. Soak up residue with an absorbent such as clay, sand or other suitable material. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

Storage temperature : 2 - 8 °C (3.6 to 46 °F)

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

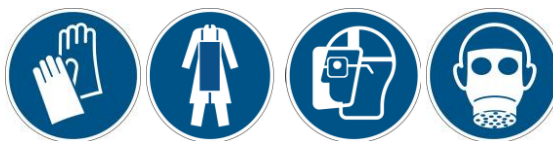
8.1. Control parameters

Propyleneimine (75-55-8)	
ACGIH TWA (ppm)	0.2 ppm
ACGIH STEL (ppm)	0.4 ppm
Remark (ACGIH)	Threshold Limit Values (TLV Basis) Critical Effects - upper respiratory tract irritation; kidney damage. Skin - potential significant contribution to overall exposure by the cutaneous route.
OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
OSHA PEL (TWA) (ppm)	2 ppm
OSHA PEL (Ceiling) (mg/m ³)	5 mg/m ³
OSHA PEL (Ceiling) (ppm)	2 ppm
Remark (OSHA)	Prevent or reduce skin absorption
Xylenes (o-, m-, p- isomers) (1330-20-7)	
ACGIH TWA (ppm)	100 ppm
ACGIH STEL (ppm)	150 ppm
OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA PEL (TWA) (ppm)	100 ppm
OSHA PEL (STEL) (mg/m ³)	655 mg/m ³
OSHA PEL (STEL) (ppm)	150 ppm
Allylamine (107-11-9)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Wear chemically impervious apron over labcoat and full coverage clothing. Wear chemical goggles and face shield in combination. Insufficient ventilation: wear respiratory protection.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Change contaminated gloves immediately. Suitable gloves for this specific application can be recommended by the glove supplier. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Eye protection : Chemical goggles and face shield must be worn in combination.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Water-White.
Molecular mass	: 57.11 g/mol
Color	: Clear liquid.
Odor	: Strong ammonia-like odor.
Odor Threshold	: 2 ppm
pH	: No data available
Relative evaporation rate (butylacetate=1)	: > 1
Melting point	: -65 - -53 °C (-54°F to -47°F)
Freezing point	: No data available
Boiling point	: 68.3 °C (155°F)
Flash point	: -4 °C 25°F (PMCC, ASTM D93)
Auto-ignition temperature	: 259 °C (498°F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 140 mm Hg @ 25°C (77°F)
Relative vapour density at 20 °C	: No data available
Relative density	: 0.801 @ 25°C (77°F)
Solubility	: Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1.32 - 15.58 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Contact with acid may lead to uncontrolled polymerization.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Ignition sources. Incompatible materials.

10.5. Incompatible materials

Water. Strong oxidizing agents. Strong acids. Acid chlorides. Acid anhydrides. Carbonyl compounds. Quinones. Sulfonyl halides. Carbon dioxide. Hydrolyzes in water to form methylethanolamine.

10.6. Hazardous decomposition products

Oxides of nitrogen and carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Fatal if swallowed. Dermal: Fatal in contact with skin. Inhalation:vapour: Fatal if inhaled.

Propyleneimine (75-55-8)	
LD50 oral rat	19 mg/kg

Xylenes (o-, m-, p- isomers) (1330-20-7)	
LD50 oral rat	3500 mg/kg
ATE CLP (dermal)	1100.000 mg/kg bodyweight
ATE CLP (gases)	4500.000 ppmv/4h
ATE CLP (vapours)	11.000 mg/l/4h
ATE CLP (dust,mist)	1.500 mg/l/4h

Allylamine (107-11-9)	
LD50 oral rat	102 mg/kg
LC50 inhalation rat (ppm)	177 ppm 8h

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Causes serious eye damage.
 Respiratory or skin sensitisation : Not classified
 Germ cell mutagenicity : Not classified
 Carcinogenicity : May cause cancer.

Propyleneimine (75-55-8)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen

Xylenes (o-, m-, p- isomers) (1330-20-7)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
 Specific target organ toxicity (single exposure) : Not classified
 Specific target organ toxicity (repeated exposure) : Not classified
 Aspiration hazard : Not classified
 Symptoms/injuries after skin contact : Causes severe skin burns and eye damage.
 Symptoms/injuries after eye contact : Causes serious eye damage.
 Symptoms/injuries after ingestion : Toxic if swallowed.
 Chronic symptoms : May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer.

SECTION 12: Ecological information

12.1. Toxicity

Estimated to be toxic to fish.

12.2. Persistence and degradability

Estimated to not be persistent in the environment.

12.3. Bioaccumulative potential

Biodegrades quickly.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities.
 Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1921 Propyleneimine, stabilized, 3, I
 UN-No.(DOT) : 1921
 DOT NA no. : UN1921
 Proper Shipping Name (DOT) : Propyleneimine, stabilized
 Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
 Hazard labels (DOT) : 3 - Flammable liquid
 6.1 - Poison inhalation hazard



Packing group (DOT) : I - Great Danger
 DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 1 L
 DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 30 L
 DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
 DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

UN-No.(IATA) : 1921

SECTION 15: Regulatory information

15.1. US Federal regulations

Propyleneimine, Stabilized

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
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Propyleneimine	CAS #:	75-88-8
Section 302 (EHS) TPQ		10,000 lb
Section 304 EHS RQ		1 lb
CERCLA RQ		1 lb



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Section 313	Listed on US SARA Section 313
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Xylenes (o-, m-, p-isomers)	CAS #: 1330-20-7
Section 302 (EHS) TPQ	
Section 304 EHS RQ	
CERCLA RQ	100 lb
Section 313	Listed on US SARA Section 313

Allylamine	CAS #: 107-11-9
Section 302 (EHS) TPQ	500 lb
Section 304 EHS RQ	500 lb
CERCLA RQ	
Section 313	Listed on US SARA Section 313

15.2. International regulations

All chemical substances in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or are exempt
 All chemical substances in this product are listed on the Japanese Existing and New Chemical Substances Inventory (ENCS) or are exempt
 All chemical substances in this product are listed on the Australian Inventory of Chemical Substances (AICS) or are exempt
 All chemical substances in this product are listed on the Chinese Chemical Inventory of Existing Chemical Substances (IECSC) or are exempt
 All chemical substances in this product are listed on the Korean Existing Chemicals Inventory (KECI) or are exempt
 All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or are exempt
 All chemical substances in this product are listed on the European EINECS Inventory or the ELINCS list or are exempt
 All chemical substances in this product are listed on the Phillipines Inventory of Chemicals and Chemical Substances (PICCS) or are exempt
 All chemical substances in this product are listed on the Taiwan Chemical Substance Inventory (TSCI) or are exempt

15.3. US State regulations

California Proposition 65

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Propyleneimine (75-55-8)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	

Propyleneimine (75-55-8)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

Xylenes (o-, m-, p-isomers) (1330-20-7)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Allylamine (107-11-9)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

Indication of changes : Revision 07/07/2015
 Other information : Author: EKW.

HMIS III Rating

Health : 4*
 Flammability : 4
 Physical : 2
 Personal Protection :



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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.