

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

1.1. Product identifier

Product form : Mixture
Product name : TIG/C-US - UP0727 / UP0728 / UP0729
Product group : Adhesives, sealants

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

U-POL US Inc
108 Commerce Way
Stockertown
PA 18083 - USA
T 1-800-340-7824 - F 1-800-787-5150
technical.department@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC - 1-800-424-9300 (UK +44 (0) 1933 230310 (07:30 - 17:00hrs UK time))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Resp. Sens. 1 H334
Skin Sens. 1 H317
Carc. 2 H351
STOT SE 3 H335

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
Precautionary statements (GHS-US) : P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing fume, vapors
P280 - Wear eye protection, protective clothing, protective gloves
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER if you feel unwell
P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
xylene	(CAS No) 1330-20-7	5 - 23	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315
ETHYL BENZENE	(CAS No) 100-41-4	< 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	(CAS No) 101-68-8	< 5	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE	(CAS No) 25686-28-6	< 5	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Suspected of causing cancer.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a doctor. Call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention. Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

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

Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

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	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Contain released substance, pump into suitable containers.
Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapors, spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Ignition sources, Heat sources, Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.
Storage temperature : < 25 °C
Storage area : Keep out of direct sunlight. Store in a well-ventilated place. Protect against frost. Store in a dry area.
Special rules on packaging : Store in a closed container. Keep only in original container. dry.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TIG/C-US - UP0727 / UP0728 / UP0729		
ACGIH	Not applicable	
OSHA	Not applicable	
xylene (1330-20-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
ACGIH	Remark (ACGIH)	URT & eye irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)		
ACGIH	ACGIH TWA (ppm)	0.01 ppm

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4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)		
ACGIH	Remark (ACGIH)	Resp sens
OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.2 mg/m ³
OSHA	OSHA PEL (Ceiling) (ppm)	0.02 ppm

4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE (25686-28-6)		
ACGIH	Not applicable	
OSHA	Not applicable	

ETHYL BENZENE (100-41-4)		
ACGIH	Not applicable	
OSHA	Not applicable	

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Safety glasses.



Materials for protective clothing : Impermeable clothing.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : In case of inadequate ventilation wear respiratory protection.
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Paste.
Color : Various
Odor : aromatic
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : > 100 °C
Auto-ignition temperature : > 200 °C
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : < 100 hPa @ 20°C
Relative vapor density at 20 °C : No data available
Relative density : No data available
Specific gravity / density : ≈ 1.22 g/cm³
Solubility : insoluble in water. Reacts with water.
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
Oxidizing properties : No data available

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Explosion limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Hydrogen chloride. Nitrogen oxides. Sulphur oxides. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

xylene (1330-20-7)	
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (dust, mist)	1.500 mg/l/4h
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE (25686-28-6)	
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
ETHYL BENZENE (100-41-4)	
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Suspected of causing cancer.

xylene (1330-20-7)	
IARC group	3 - Not classifiable
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)	
IARC group	3 - Not classifiable
ETHYL BENZENE (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met

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Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause an allergic skin reaction.
Symptoms/injuries after skin contact	: Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

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Persistence and degradability	Not established.

12.3. Bioaccumulative potential

TIG/C-US - UP0727 / UP0728 / UP0729	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Remove waste in accordance with local and/or national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT
Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

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Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

xylene	CAS No 1330-20-7	5 - 23
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	CAS No 101-68-8	< 5
ETHYL BENZENE	CAS No 100-41-4	< 5

xylene (1330-20-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) 100 lb

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate (101-68-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) 5000 lb

4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE (25686-28-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

ETHYL BENZENE (100-41-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) 1000 lb

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

STOT SE 3 H335

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

ETHYL BENZENE (100-41-4)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

ETHYL BENZENE (100-41-4)

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	Non-significant risk level (NSRL)
Yes	No	No	No	54

SECTION 16: Other information

Other information : None.

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Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Carc. 2	Carcinogenicity Category 2
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard

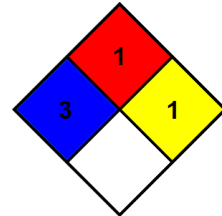
: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

NFPA reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



SDS US UPOL

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The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.