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

1.1. Product identifier

Product form : Mixture
Product name : TIG/C
Product group : Adhesives, sealants

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only
Function or use category : Adhesives, binding agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

U-POL LIMITED
Denington Road
Northants
NN8 2QH Wellingborough - UK
T +44 (0) 1933 230310 - F +44 (0) 1933 425797
technical.department@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : +44 1933 230310 (07:30 - 17:00hrs UK time)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Dermal)	H312
Acute Tox. 4 (Inhalation:dust,mist)	H332
Resp. Sens. 1	H334
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]

Xn; R20/21/22
R42
R10
Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS07 GHS08

Signal word (CLP) : Danger
Hazardous ingredients : 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate, 4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE
Hazard statements (CLP) : H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
Precautionary statements (CLP) : P202 - Do not handle until all safety precautions have been read and understood

P261 - Avoid breathing mist, vapours, spray
P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective clothing, protective gloves
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P342+P311 - If experiencing respiratory symptoms: Call a doctor

EUH phrases : EUH204 - Contains isocyanates. May produce an allergic reaction
EUH208 - Contains 4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate, 4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE. May produce an allergic reaction

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
xylene	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9	5 - 23	R10 Xn; R20/21 Xi; R38
ETHYL BENZENE	(CAS No) 1330-20-7 (EC no) 215-535-7	< 5	Not classified
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9	< 5	Carc.Cat.3; R40 Xn; R20 Xn; R48/20 Xi; R36/37/38 R42 R43
4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE	(CAS No) 25686-28-6 (EC no) 500-040-3	< 5	Carc.Cat.3; R40 T+; R26/28 Xn; R20 Xn; R48/20 R42 Xi; R36/37/38 R43
7-Oxa-3,20-diazadispiro5.1.11.2heneicosane-20-propanoic acid, 2,2,4,4-tetramethyl-21-oxo-, dodecyl ester		< 5	Xi; R38 N; R51/53

Name	Product identifier	Specific concentration limits
xylene	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9	(C >= 12.5) Xn;R20/21
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9	(C >= 0.1) R42 (C >= 5) Xi;R36/37/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
xylene	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9	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) 1330-20-7 (EC no) 215-535-7	< 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9	< 5	Carc. 2, H351 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4-METHYLENDIPHENYLDIISOCYANAT, OLIGOMERE	(CAS No) 25686-28-6 (EC no) 500-040-3	< 5	Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
7-Oxa-3,20-diazadispiro5.1.11.2heneicosane-20-propanoic acid, 2,2,4,4-tetramethyl-21-oxo-, dodecyl ester		< 5	Skin Irrit. 2, H315 Aquatic Chronic 2, H411

Name	Product identifier	Specific concentration limits
4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	(CAS No) 101-68-8 (EC no) 202-966-0 (EC index no) 615-005-00-9	(C >= 0.1) STOT SE 3, H335 (C >= 5) Eye Irrit. 2, H319 (C >= 5) Skin Irrit. 2, H315 (C >= 5) Resp. Sens. 1, H334

Full text of R- and 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).

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.

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.

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.

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 vapour. Use only outdoors or in a well-ventilated area. Avoid breathing mist, vapours, spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

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

xylene (1330-20-7)		
EU	Local name	Xylene, mixed isomers, pure
EU	IOELV TWA (mg/m³)	221 mg/m³
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m³)	442 mg/m³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	Skin
United Kingdom	Local name	Xylene, o-,m-,p- or mixed isomers
United Kingdom	WEL TWA (mg/m³)	220 mg/m³
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m³)	441 mg/m³
United Kingdom	WEL STEL (ppm)	100 ppm
United Kingdom	Remark (WEL)	Sk, BMGV

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

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.

Colour	:	Various.
Odour	:	aromatic.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=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)	:	Non flammable
Vapour pressure	:	< 100 hPa @ 20°C
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	≈ 1.22 g/cm³
Solubility	:	insoluble in water. Reacts with water.
Log Pow	:	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	:	0.1 vol % 7.8 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

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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Oral: Harmful if swallowed. Dermal: Harmful in contact with skin. Inhalation:dust,mist: Harmful if inhaled.
Skin corrosion/irritation	:	Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	:	Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity	:	Not classified Based on available data, the classification criteria are not met
Carcinogenicity	:	Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	:	Not classified Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure)	:	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	:	Not classified Based on available data, the classification criteria are not met
Aspiration hazard	:	Not classified Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	:	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

TIG/C	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

TIG/C	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional 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 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 ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

Proper Shipping Name (ADN) : Not applicable

Proper Shipping Name (RID) : Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

14.6.2. Transport by sea

14.6.3. Air transport

14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No
Not subject to ADN : No

14.6.5. Rail transport

Carriage prohibited (RID) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

Seveso Information : This product is not subject to the Seveso Directive

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H302	Harmful if swallowed
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
H411	Toxic to aquatic life with long lasting effects
EUH204	Contains isocyanates. May produce an allergic reaction
EUH208	Contains . May produce an allergic reaction
R10	Flammable
R20	Harmful by inhalation
R20/21	Harmful by inhalation and in contact with skin
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R26/28	Very toxic by inhalation and if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
T+	Very toxic
Xi	Irritant
Xn	Harmful

UPOL SDS EU (no product code)

For professional use only.
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