

Revision Date 24-Nov-2010

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Description: Toluene 2,6-diisocyanate
Cat No. 208040000; 208040010; 208040050
Synonyms 2-Methyl-1,3-phenylene diisocyanate

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

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Acros Organics BVBA
 Janssen Pharmaceuticaaan 3a
 2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

Emergency Telephone Number

For information in the US, call: 001-800-ACROS-01
 For information in Europe, call: +32 14 57 52 11

Emergency Number, Europe: +32 14 57 52 99
 Emergency Number, US: 001-201-796-7100

CHEMTREC Phone Number, US: 001-800-424-9300
 CHEMTREC Phone Number, Europe: 001-703-527-3887

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute Inhalation Toxicity - Vapors	Category 2
Skin Corrosion / irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ systemic toxicity (single exposure)	Category 3
Chronic aquatic toxicity	Category 3

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R phrases mentioned in this Section, see Section 16

Symbol(s)

T+ - Very toxic

R -phrase(s)

R26 - Very toxic by inhalation

R40 - Limited evidence of a carcinogenic effect

Risk Combination Phrases

R36/37/38 - Irritating to eyes, respiratory system and skin

R42/43 - May cause sensitization by inhalation and skin contact

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Danger

Hazard Statements

H351 - Suspected of causing cancer
H317 - May cause an allergic skin reaction
H335 - May cause respiratory irritation
H412 - Harmful to aquatic life with long lasting effects
H315 - Causes skin irritation
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H330 - Fatal if inhaled
H319 - Causes serious eye irritation

Precautionary Statements - EU (§28, 1272/2008)

P310 - Immediately call a POISON CENTER or doctor/ physician
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P304 + P341 - IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician
P280 - Wear eye protection/ face protection
P281 - Use personal protective equipment as required
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray
P273 - Avoid release to the environment
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Other Hazards

Lachrymator (substance which increases the flow of tears).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No.	Weight %	CAS-No	Classification	GHSCLAS	REACH Reg. No.
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3. COMPOSITION/INFORMATION ON INGREDIENTS

Toluene 2,6-diisocyanate 91-08-7	EEC No. 202-039-0	97	91-08-7	Carc. Cat. 3; R40 T+; R26 Xi; R36/37/38 R42/43 R52-53	Acute Tox. 2 (H330) Carc 2 (H351) Eye Irrit. 2 (H319) STOT SE 3 (H335) Skin Irrit. (H315) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) AQ. Chron. 3 (H412)	-
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For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact

Immediate medical attention is required Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes

Skin Contact

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes Immediate medical attention is required

Ingestion

Call a physician immediately Clean mouth with water

Inhalation

Remove from exposure, lie down Move to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration Immediate medical attention is required

Notes to Physician

Treat symptomatically

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray Carbon dioxide (CO₂) Dry chemical chemical foam

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable and closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not breathe dust Do not breathe vapors or spray mist Do not get in eyes, on skin, or on clothing Use only in area provided with appropriate exhaust ventilation

Conditions for safe storage, including any incompatibilities

Keep in a dry place Keep container tightly closed Keep under nitrogen Keep refrigerated

Specific End Uses

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure limits

Component

Toluene 2,6-diisocyanate

European Union	The United Kingdom	France	Belgium	Spain
			STEL: 0.02 ppm STEL: 0.14 mg/m ³ TWA: 0.005 ppm TWA: 0.037 mg/m ³	VLA-EC: 0.14 mg/m ³ VLA-EC: 0.02 ppm VLA-ED: 0.005 ppm VLA-ED: 0.036 mg/m ³

Component

Toluene 2,6-diisocyanate

Italy	Portugal	The Netherlands	Finland	Denmark
	STEL: 0.02 ppm TWA: 0.005 ppm			TWA: 0.005 ppm TWA: 0.035 mg/m ³

Component

Toluene 2,6-diisocyanate

Austria	Switzerland	Poland	Norway	Ireland
STEL: 0.02 ppm STEL: 0.14 mg/m ³ MAK: 0.035 mg/m ³ MAK: 0.005 ppm		NDSch: 0.070 mg/m ³ NDS: 0.035 mg/m ³	TWA: 0.005 ppm TWA: 0.035 mg/m ³	

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration (PNEC)

No information available.

Exposure controls

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Engineering Measures

Ensure adequate ventilation, especially in confined areas Ensure that eyewash stations and safety showers are close to the workstation location

Personal protective equipment

Eye Protection

Goggles

Hand Protection

Protective gloves

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Liquid

Appearance

Light yellow

odor

odorless

pH

No information available.

Vapor Pressure

0.025 mbar @ 25 °C

Vapor Density

6.0 (Air = 1.0)

Viscosity

3 mPa.s at 25 °C

Boiling Point/Range

246 - 247°C / 474.8 - 476.6°F

Melting Point/Range

13°C / 55.4°F

Flash Point

> 110°C / > 230°F

Specific Gravity

1.220

Molecular Formula

C9 H6 N2 O2

Molecular Weight

174.16

10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Moisture sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization

No information available.

Hazardous Reactions .

No information available.

Conditions to Avoid

Excess heat, Incompatible products, Exposure to moist air or water.

Incompatible Materials

Acids, Strong oxidizing agents, Strong bases, Alcohols, Amines.

Hazardous Decomposition Products

Nitrogen oxides (NOx). Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen cyanide (hydrocyanic acid).

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11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Product Information

No acute toxicity information is available for this product

Component Information

Chronic Toxicity

Carcinogenicity Component

The table below indicates whether each agency has listed any ingredient as a carcinogen

Toluene 2,6-diisocyanate

IARC	UK
Group 2B	

Sensitization

May cause sensitization by inhalation and skin contact

Mutagenic Effects

No information available

Reproductive Effects

No information available.

Developmental Effects

No information available.

Target Organs

No information available.

Other Adverse Effects

See actual entry in RTECS for complete information

Endocrine Disruptor Information

None known

12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

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13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products

Dispose of in accordance with local regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 2078
Hazard Class 6.1
Packing Group II
Proper Shipping Name TOLUENE DIISOCYANATE

ADR

UN-No 2078
Hazard Class 6.1
Packing Group II
Proper Shipping Name TOLUENE DIISOCYANATE

IATA

UN-No 2078
Hazard Class 6.1
Packing Group II
Proper Shipping Name TOLUENE DIISOCYANATE

15. REGULATORY INFORMATION

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

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Toluene 2,6-diisocyanate	202-039-0	-		X	X	-	X	X	X	X	KE-10915 X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory Lists

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

Tolyene 2,6-diisocyanate**Revision Date 24-Nov-2010****CHINA** - China Inventory of Existing Chemical Substances**AICS** - Inventory of Chemical Substances**KECL** - Existing and Evaluated Chemical Substances**Chemical Safety Assessment****16. OTHER INFORMATION****Text of R phrases mentioned in Section 2-3**

R26 - Very toxic by inhalation

R40 - Limited evidence of a carcinogenic effect

R36/37/38 - Irritating to eyes, respiratory system and skin

R42/43 - May cause sensitization by inhalation and skin contact

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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Revision Summary

Not applicable

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**Disclaimer**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text

End of Safety Data Sheet