

Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 28.05.2009

Printing date 02.07.2013

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name

2,6-Diisopropylphenyl isocyanate

Stock number:

L10613

CAS Number:

28178-42-9

EC number:

248-885-4

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

Identified use:

SU24 Scientific research and development

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
 A Johnson Matthey Company
 Zeppelinstr. 7b
 76185 Karlsruhe / Germany
 Tel: +49 (0) 721 84007 280
 Fax: +49 (0) 721 84007 300
 Email: tech@alfa.com
 www.alfa.com

Informing department:

Product safety Tel + +049 (0) 7275 988687-0

1.4 Emergency telephone number:

Carechem 24: +44 (0) 1235 239 670 (Multi-language emergency number)

Poison Information Center Mainz

www.giftinfo.uni-mainz.de Telephone: +49(0)6131/19240

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008



GHS06 skull and crossbones

Acute Tox. 1 H330 Fatal if inhaled.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

T+; Very toxic

R26: Very toxic by inhalation.



Xn; Harmful

R22: Harmful if swallowed.



Xi; Irritant

R37/38-41: Irritating to respiratory system and skin. Risk of serious damage to eyes.



Xn; Sensitising

R42: May cause sensitisation by inhalation.

Information concerning particular hazards for human and environment:

Not applicable

Other hazards that do not result in classification

Lachrymator

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

Signal word

Hazard statements

The substance is classified and labelled according to the CLP regulation.

GHS05, GHS06, GHS08

Danger

H302 Harmful if swallowed.

H330 Fatal if inhaled.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P284 Wear respiratory 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.

P320 Specific treatment is urgent (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 3: Composition/information on ingredients**3.1 Substances**

CAS# Designation:

28178-42-9 2,6-Diisopropylphenyl isocyanate

Identification number(s):

248-885-4

EC number:

SECTION 4: First aid measures**4.1 Description of first aid measures**

General information

Instantly remove any clothing soiled by the product.

Remove breathing apparatus only after soiled clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

(Contd. on page 2)
DE/E

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.07.2013

Revision: 28.05.2009

Trade name **2,6-Diisopropylphenyl isocyanate**

(Contd. of page 1)

After inhalation	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
After skin contact	Seek immediate medical advice. Instantly wash with water and soap and rinse thoroughly.
After eye contact	Seek immediate medical advice.
After swallowing	Rinse opened eye for several minutes under running water. Then consult doctor.
4.2 Most important symptoms and effects, both acute and delayed	Seek medical treatment.
4.3 Indication of any immediate medical attention and special treatment needed	No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media	CO ₂ , sand, extinguishing powder. Do not use water.
Suitable extinguishing agents	If this product is involved in a fire, the following can be released: Carbon monoxide and carbon dioxide Nitrogen oxides (NO _x) Hydrogen cyanide (HCN)
5.2 Special hazards arising from the substance or mixture	
5.3 Advice for firefighters	
Protective equipment:	Wear self-contained breathing apparatus. Wear full protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
6.2 Environmental precautions:	Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach sewage system or water bodies. Do not allow to enter the ground/soil.
6.3 Methods and material for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation.
Prevention of secondary hazards:	No special measures required.
6.4 Reference to other sections	See Section 7 for information on safe handling See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Handle under dry protective gas. Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace. Open and handle container with care. Prevent formation of aerosols.
Information about protection against explosions and fires:	No information known.
7.2 Conditions for safe storage, including any incompatibilities	
Storage	
Requirements to be met by storerooms and containers:	Refrigerate
Information about storage in one common storage facility:	Store away from oxidizing agents. Protect from heat. Store away from water.
Further information about storage conditions:	Store under dry inert gas. This product is moisture sensitive. Keep container tightly sealed. Protect from humidity and keep away from water. Store in a locked cabinet or with access restricted to technical experts or their assistants.
7.3 Specific end use(s)	Refrigerate No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
8.1 Control parameters	
Components with critical values that require monitoring at the workplace:	Not required.
Additional information:	No data
8.2 Exposure controls	
Personal protective equipment	
General protective and hygienic measures	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Store protective clothing separately. Avoid contact with the skin. Avoid contact with the eyes and skin. Maintain an ergonomically appropriate working environment.
Breathing equipment:	Use self-contained respiratory protective device in emergency situations.
Protection of hands:	Check protective gloves prior to each use for their proper condition. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Material of gloves	Impervious gloves
Penetration time of glove material	Not determined
Eye protection:	Tightly sealed safety glasses.
Body protection:	Face protection Protective work clothing.

DE/E

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 02.07.2013

Revision: 28.05.2009

Trade name **2,6-Diisopropylphenyl isocyanate**

(Contd. of page 2)

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

Form: Liquid
Colour: Colourless
Smell: Pungent
Odour threshold: Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: 116-117 °C (10mm Hg)
Sublimation temperature / start: Not determined

Flash point: 107 °C
Inflammability (solid, gaseous): Not determined.
Ignition temperature: Not determined
Decomposition temperature: Not determined
Self-inflammability: Not determined.

Danger of explosion: Product is not explosive.

Critical values for explosion:

Lower: Not determined
Upper: Not determined
Steam pressure: Not determined
Density at 20 °C: 0,951 g/cm³
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with

Water: Hydrolyzes
Partition coefficient (n-octanol/water): Not determined.

Viscosity:
dynamic: Not determined.
kinematic: Not determined.

9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No information known.

10.2 Chemical stability

Stable under recommended storage conditions.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

No dangerous reactions known

10.5 Incompatible materials:

Alcohols
Amines
Oxidizing agents
Heat
Water/moisture
Carbon monoxide and carbon dioxide
Nitrogen oxides (NO_x)
Hydrogen cyanide (prussic acid)

10.6 Hazardous decomposition products:**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity:**

Harmful if swallowed.
Fatal if inhaled.

LD/LC50 values that are relevant for classification:

Oral	LD50	3 gm/kg (mouse) 1414 mg/kg (rat)
Dermal	LDLo	1260 mg/kg (rabbit)
Inhalative	LC50/2H	47 mg/m ³ /2H (rat)
Irritation of eyes	severe	100 mg (rabbit)

Skin irritation or corrosion:

Causes skin irritation.

Eye irritation or corrosion:

Causes serious eye damage.

Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity:

No effects known.

Carcinogenicity:

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity:

No effects known.

Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

May cause respiratory irritation.

Aspiration hazard:

No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:**

No further relevant information available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Additional ecological information:**General notes:**

Do not allow material to be released to the environment without proper governmental permits.
Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Avoid transfer into the environment.

12.5 Results of PBT and vPvB assessment**PBT:**

Not applicable.

vPvB:

Not applicable.

12.6 Other adverse effects

No further relevant information available.

DE/E

(Contd. on page 4)

Safety data sheet
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Revision: 28.05.2009

Trade name **2,6-Diisopropylphenyl isocyanate**

(Contd. of page 3)

SECTION 13: Disposal considerations**13.1 Waste treatment methods
Recommendation**

Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.
Consult state, local or national regulations for proper disposal.

**Uncleaned packagings:
Recommendation:**

Disposal must be made according to official regulations.

SECTION 14: Transport information**UN-Number
ADR, IMDG, IATA**

UN2206

**14.2 UN proper shipping name
ADR
IMDG, IATA**

2206 ISOCYANATES, TOXIC, N.O.S. (2,6-Diisopropylphenyl isocyanate)
ISOCYANATES, TOXIC, N.O.S. (2,6-Diisopropylphenyl isocyanate)

**14.3 Transport hazard class(es)
ADR****Class
Label
IMDG, IATA**

6.1 (T1) Toxic substances.
6.1

**Class
Label**

6.1 Toxic substances.
6.1

**Packing group
ADR, IMDG, IATA**

II

14.5 Environmental hazards:

Not applicable.

**14.6 Special precautions for user
Kemler Number:
EMS Number:**

Warning: Toxic substances.
60
F-A,S-A

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC
Code**

Not applicable.

Transport/Additional information:**ADR
Excepted quantities (EQ):
Limited quantities (LQ)
Transport category
Tunnel restriction code**

E4
100 ml
2
D/E

UN "Model Regulation":

UN2206, ISOCYANATES, TOXIC, N.O.S. (2,6-Diisopropylphenyl isocyanate),
6.1, II

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Australian Inventory of Chemical**

Substance is listed.

Substances**Standard for the Uniform Scheduling of
Drugs and Poisons**

Substance is not listed.

National regulations**Information about limitation of use:**

Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Other regulations, limitations and prohibitive regulations**ELINCS (European List of Notified Chemical
Substances)**

Substance is not listed.

Substances of very high concern (SVHC)**according to REACH, Article 57**

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

DE/E