

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name: 1,4-BUTANEDIISOCYANATE Product Code: GEO-03216 CAS-No. : 4538-37-8

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Company Identification: Georganics Ltd., Koreničova 1, 811 03 Bratislava, Slovak Republic

Phone Number: +421 33 6403132, Fax Number: +421 33 6403133, E-mail address: georganics@georganics.sk

1.4 Emergency Number Slovakia: National Toxicological Information Centre Tel: +421-2-54774166, Mob: +421 911 166 066

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 4), H302
 Acute toxicity, Inhalation (Category 4), H332
 Acute toxicity, Dermal (Category 4), H312
 Skin irritation (Category 2), H315
 Eye irritation (Category 2), H319
 Specific target organ toxicity - single exposure (Category 3), H335

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

GHS pictogram:



H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

Signal word:

Warning

P261 Avoid breathing vapours.
 P280 Wear protective gloves/ protective clothing.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

Lachrymator

SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms	Formula	Molecular Weight	CAS#	EC-No.
Tetramethylene diisocyanate	C6H8N2O2	140,14g/mol	4538-37-8	-

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
1,4-BUTANEDIISOCYANATE		
CAS#: 4538-37-8 EC-No: -	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H302, H332, H312, H315, H319, H335	<= 100%

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5 - FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture - During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

5.3 Advice for firefighters - Wear self-contained breathing apparatus and protective clothing to prevent contact with skin/eyes.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** - Wear protective equipment. Ensure adequate ventilation. Keep unprotected persons away. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash spill site after material pickup is complete.
- 6.2 Environmental precautions** - Prevent further leakage or spillage if safe to do so. Do not let this chemical enter the environment.
- 6.3 Methods and materials for containment and cleaning up** – Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation
- 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** - Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Ensure adequate ventilation.
- 7.2 Conditions for safe storage, including any incompatibilities** - Store in a dry, cool and well ventilated place. Keep container closed when not in use. Recommended storage temperature: 2 - 8 °C. Moisture sensitive. See Section 10 for stability and reactivity information.
- 7.3 Specific end use(s)** - No further relevant information available

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Control parameters**
- 8.2 Exposure controls**
- Engineering Controls:** Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels. Safety shower and eye bath.
- Personal Protective Equipment**
- Eyes:** Wear chemical safety glasses.
- Skin:** Wear appropriate protective gloves and clothing to prevent skin exposure.
- Clothing:** Wear appropriate protective work clothing.
- Respirators:** Use breathing protection with high concentrations.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties**

Form:	Clear liquid	Flash Point:	106 °C - closed cup
Color:	Light brown	Specific Gravity/Density:	Not available
Boiling Point:	Not available	Molecular Formula:	C6H8N2O2
Freezing/Melting Point:	102 - 104 °C at 19 hPa - lit.	Molecular Weight:	140,14

9.2 Other safety information - Not 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** - Not available
- 10.4 Conditions to avoid** - Incompatible products
- 10.5 Incompatible materials** - Strong oxidizing agents, acids, alcohols
- 10.6 Hazardous decomposition products** - Carbon oxides, nitrogen oxides

SECTION 11 - TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

- Acute toxicity** - No data
- LD/LC50 values that are relevant for classification** - No data
- Skin irritation or corrosion** - Causes skin irritation
- Eye irritation or corrosion** - Causes serious eye irritation.
- Sensitization** - No sensitizing effect known.
- Germ cell mutagenicity** - No data available
- Carcinogenicity** - No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- 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.
- Subacute to chronic toxicity** - No effects known.
- Additional toxicological information** - The toxicological properties have not been fully investigated.

SECTION 12 - ECOLOGICAL INFORMATION

- 12.1 Toxicity** - No data available
12.2 Persistence and degradability - No data available
12.3 Bioaccumulative potential - No data available
12.4 Mobility in soil -No data available
12.5 Results of PBT and vPvB assessment - PBT/vPvB Not applicable.
12.6 Other adverse effects - No data available

SECTION 13 - DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods**
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
Contaminated packaging
Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

- 14.1 UN number:** ADR/RID: - IMDG: - IATA: 2810
14.2 UN proper shipping name:
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: AVIATION REGULATED LIQUID, N.O.S. (1,4-DIISOCYANATOBUTANE)
14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: 9
14.4 Packaging group
ADR/RID: - IMDG: - IATA: III
14.5 Environmental hazards

SECTION 15 - REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** - This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.2 Chemical safety assessment - For this product a chemical safety assessment was not carried out

SECTION 16 - OTHER INFORMATION

The information contained in the SDS are compiled according to the present knowledge of the manufacturer. It does not represent any guarantee of the properties of the product. SDS shall be used only as a guide. Georganics Ltd. is not liable for damages incurred in the handling or contact with chemicals.