



MATERIAL SAFETY DATA SHEET  
**4-BROMO-2-CHLOROPHENYL ISOCYANATE**



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**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION**

<b>Company Identification:</b>	<b>Georganics Ltd.</b> Koreničova 1 811 03 Bratislava Slovak Republic	Phone Number: +421 33 6403132 Fax Number: +421 33 6403133 E-mail address: georganics@georganics.sk
<b>Emergency Number, Slovakia:</b>	National Toxicological Information Centre Tel: 00421-2-54774166 Mobil: +421 911 166 066	

**SECTION 2 - HAZARDS IDENTIFICATION**

<b>Hazard Symbol:</b>		<b>Risk Phrases:</b> R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed R36/37/38 - Irritating to eyes, respiratory system and skin
<b>Xn - harmful</b>		
<b>GHS pictogram:</b>		H302 - Harmful if swallowed H312 - Harmful in contact with skin H315 - Causes skin irritation H319 - Causes serious eye irritation H332 - Harmful if inhaled H335 - May cause respiratory irritation
<b>Signal word:</b>	<b>Warning</b>	P261 - Avoid breathing dust/fume/gas/mist/vapors/spray P280 - Wear protective gloves/protective clothing/eye protection/face protection P301+ P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**SECTION 3 - COMPOSITION, INFORMATION ON INGREDIENTS**

CAS#	Chemical Name	Assay (%)	EINECS#
190774-47-1	4-Bromo-2-chlorophenyl isocyanate	min. 99	-

**SECTION 4 - FIRST AID MEASURES**

<b>Eyes:</b>	Rinse opened eye for at least 15 minutes under running water. Get medical aid.
<b>Skin:</b>	Instantly wash with water and soap and rinse thoroughly. Get medical aid.
<b>Ingestion:</b>	Wash mouth out with water. Get medical aid.
<b>Inhalation:</b>	Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. If required, provide artificial respiration.

**SECTION 5 - FIRE FIGHTING MEASURES**

<b>Suitable extinguishing agents</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide or appropriate foam.
<b>Protective equipment:</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin/eyes.
<b>Unusual fire and explosions hazards:</b>	During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

<b>Person-related safety precautions:</b>	Wear protective equipment as indicated in section 8. Ensure adequate ventilation. Avoid dust formation. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash spill site after material pickup is complete.
<b>Environmental precautions:</b>	Should not be released into the environment.
<b>Additional information:</b>	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**

<b>Handling:</b>	Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Avoid dust formation.
<b>Storage:</b>	Store in a dry, cool and well ventilated place. Keep container closed when not in use. Moisture sensitive. See Section 10 for stability and reactivity information.

**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

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

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form:</b>	Solid	<b>Specific Gravity/Density:</b>	Not available
<b>Color:</b>	White	<b>Refractive Index:</b>	Not available
<b>Boiling Point:</b>	Not available	<b>Molecular Formula:</b>	C <sub>7</sub> H <sub>3</sub> BrClNO
<b>Freezing/Melting Point:</b>	71 - 72 °C	<b>Molecular Weight:</b>	232,39
<b>Flash Point:</b>	Not available		

**SECTION 10 - STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable under normal temperatures and pressures.
<b>Incompatible Materials:</b>	Strong oxidants
<b>Conditions to avoid:</b>	Incompatible products.
<b>Hazardous Decomposition Products:</b>	Carbon oxides, nitrogen oxides, hydrogen bromide, hydrogen chloride

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<b>Carcinogenicity:</b>	There are no known carcinogenic chemicals in this product. No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
<b>Potential Health Effects:</b>	Inhalation may cause respiratory irritation. May be harmful if inhaled, swallowed or absorbed through skin.
<b>Other:</b>	The toxicological properties have not been fully investigated.

**SECTION 12 - ECOLOGICAL INFORMATION**

Do not let product enter drains.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

Dispose of in a manner consistent with federal, state, and local regulations.

**SECTION 14 - TRANSPORT INFORMATION**

	<b>IATA</b>	<b>IMDG/IMO</b>	<b>RID/ADR</b>
<b>Shipping Name:</b>	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.	TOXIC SOLID, ORGANIC, N.O.S.
<b>Hazard Class:</b>	6.1	6.1	6.1
<b>UN Number:</b>	2811	2811	2811
<b>Packing Group:</b>	II	II	II

**SECTION 15 - REGULATORY INFORMATION****European/International Regulations**

European Labeling in Accordance with EC Directives

<b>Hazard Symbols:</b>	Xn - harmful
<b>Risk Phrases:</b>	R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed R36/37/38 - Irritating to eyes, respiratory system and skin
<b>Safety Phrases:</b>	S22 - Do not breathe dust. S26 - In case of contact with eyes rinse immediately with plenty of water and seek medical advice. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Canadian DSL/NDSL

CAS# 190774-47-1 is not listed on Canada's DSL or NDSL List.

US Federal TSCA

CAS# 190774-47-1 is not listed on the TSCA Inventory.

**SECTION 16 - OTHER INFORMATION****WARRANTY**

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