Safety Data Sheet

BIO-CHAIN

1. Identification

Product identifier:	BIO-CHAIN
Other means of identification:	493
Recommended use:	Lubricant
Restriction on use:	Any that differs from the recommended use
Supplier Name:	Prolab 4531 Rue Industrielle Thetford Mines,, QC Canada, G6H 2J1
Telephone:	1-888-449-1626
Emergency tel. number:	1-888-226-8832
Available hours:	Monday to Thursday 8h-5h

2. Hazard identification

Signal word: WARNING

Product classification:

Reproductive toxicity - Category 2.

Hazard statement(s): H361 - Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye and face protection.

Response: IF exposed or concerned: Get medical advice.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local, regional, national and/or international regulations in force.

Other hazards: No other effects shown.

See toxicological information, section 11

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3. Composition / Information on ingredients

No	CAS No :	Common name and synonyms	Concentration % (w/w)
1	68411-46-1	Alkylated diphenylamines	1.00 - 5.00 *

* The actual concentration range is withheld as a trade secret.

4. First-aid measures

If swallowed, irritation, any type of overexposure or symptoms of overexposure occur during use of the product or persists after use, immediately contact a POISON CENTER, an EMERGENCY ROOM or a PHYSICIAN; ensure that the product safety data sheet is available.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention as soon as possible.

Skin contact: Remove contaminated clothing immediately. Wash the skin with soap and water. Thoroughly wet contaminated clothing. If irritation persists, consult a doctor.

Inhalation: Move exposed person to fresh air. Keep this person warm and lying down. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention immediately.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting unless instructed by medical personnel.

Symptoms: No known symptoms.

Effects (acute or delayed): Studies suggest the possibility of an increase in congenital malformations.

Immediate medical attention and special treatment: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Suitable extinguishing media: Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media: Jets of water can facilitate the spread of fire.

Specific hazards arising from the hazardous product: No specific hazard.

Hazardous combustion products: Carbon monoxide and dioxide.

Special protective equipment and precautions for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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6. Accidental release measures

Personal precautions: No action shall be taken involving any personal risk or if you do not have suitable training or protection. Evacuate surrounding areas. Do not touch or walk through spilled material. Shut off all heating and ignition sources. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Protective equipment and emergency procedures: Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution. Use inert absorbent or retention tubes in the event of a large spill.

Methods and materials for containment and cleaning up: Stop leak if without risk. Move containers from spill area. Contain leaks and pick up with non-combustible absorbent materials such as sand, earth or vermiculite. Then, place in an appropriate waste disposal container according to local regulations. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing dust. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for safe storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Incompatibility: Strong acids and bases as well as strong oxidizing agent.

8. Exposure Controls/ Personal protection

Control parameters:

Occupational exposure limit values:

Alberta

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

British-Columbia

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

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Ontario

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Quebec

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Saskatchewan

No	CAS No :	Common name and synonyms	8-hour occupational exposure limit (TWA)		15-minute occupational exposure limit (STEL)		Ceiling occupational exposure limit	
			ppm	mg/m^3	ppm	mg/m^3	ppm	mg/m^3
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

United States

No	CAS No :	Common name and synonyms	IDLH NIOSH	Regulatory Limits			Recommended Limits	
				OSHA PEL		California / OSHA PEL	NIOSH REL	ACGIH ® 2025 TLV ®
				ppm	mg/m^3	8-hour TWA (ST) STEL (C) Ceiling	Up to 10-hour TWA (ST) STEL (C) Ceiling	8-hour TWA (ST) STEL (C) Ceiling
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

IDLH: Immediately Dangerous to Life or Health Concentrations
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limits
California / OSHA: California Division of Occupational Safety and Health
REL: Recommended Exposure Limits
ACGIH ®: American Conference of Governmental Industrial Hygienists
TLV ®: Threshold Limit Values

Appropriate engineering controls: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eyes: DO NOT WEAR CONTACT LENSES. Wear anti-splash safety goggles.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if

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a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.

Respiratory: If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Others: Wear protective clothing with long sleeves and appropriate safety shoes at all times.

9. Physical and chemical properties

Physical state: Liquid
Colour: Yellowish
Odour: characteristic
Melting/Freezing point: -38 °C (-36.4 °F)
Initial boiling point/boiling range: Not available
Flammability: Not available
Lower flammable/explosive limit: Not available
Upper flammable/explosive limit: Not available
Flash point: > 300 °C (572 °F) Closed cup
Auto-ignition temperature: Not available
Decomposition temperature: Not available
pH: Not applicable
Kinematic viscosity: 75.2 mm^2/s (at 40 °C)
Solubility (in water): Insoluble
Partition coefficient – n-octanol/water (Log Kow): Not available
Vapour pressure: Not available
Density and relative density: 0.9402 kg/L at 20 °C (water = 1)
Relative vapour density: > 1 (air = 1)
Particle characteristics: Not available

10. Stability and reactivity

Reactivity: Stable under recommended conditions of storage and handling.

Chemical stability: The product is chemically stable under normal conditions of use.

Possibility of hazardous reactions: No dangerous or polymerization reactions will not occur under normal conditions of use. May ignite if heated strongly and in the presence of an ignition source.

Conditions to avoid: Do not pierce or burn, even after use.

Incompatible materials: This product can attack certain types of plastic, rubber or coatings.

Hazardous decomposition products: Carbon monoxide and dioxide.

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11. Toxicological information

	Oral	Dermal	Inhalation gases	Inhalation vapours	Inhalation dusts/mists
$ATE_{product}$	> 5000 mg/kg	> 5000 mg/kg	N/A	> 20 mg/l	> 5 mg/l

No	CAS No :	Common name and synonyms	LD_{50} oral mg/kg	LD_{50} skin mg/kg	LC_{50} inhalation ppmV 4h - gases	LC_{50} inhalation mg/l 4h - vapours	LC_{50} inhalation mg/l 4h - dusts-mist
1	68411-46-1	Alkylated diphenylamines	> 5000	> 5000	N/A	> 20.00	> 5.00

Routes of exposure: This product is absorbed through the respiratory tract, skin and gastrointestinal tract.

Symptoms: No known symptoms.

Delayed and immediate effects: Studies suggest the possibility of an increase in congenital malformations.

Aspiration hazard	N/A
Skin corrosion - Skin irritation	N/A
Serious eye damage - Serious eye irritation - Eye irritation	N/A
Skin sensitization	N/A
Respiratory sensitization	N/A
Specific target organ toxicity – single exposure	N/A
Specific target organ toxicity – single exposure Category 3 Narcotic effects	N/A
Specific target organ toxicity – single exposure Category 3 Respiratory tract irritation	N/A
Specific target organ toxicity – repeated exposure	N/A

No	CAS No :	Common name and synonyms	IARC	ACGIH	Mutagenicity	Effect on reproduction - Fertility	Effect on reproduction - Development
1	68411-46-1	Alkylated diphenylamines	Not listed	Not listed	No effects shown.	Possible risk of impaired fertility.	The data do not allow for an adequate evaluation of the effects on development.

Cancer classification under IARC (International Agency for Research on Cancer)

Group 1: carcinogenic to humans.
Group 2A: probably carcinogenic to humans.
Group 2B: possibly carcinogenic to humans.
Group 3: not classifiable as to its carcinogenicity to humans.
Group 4: probably not carcinogenic to humans.

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Cancer classification under ACGIH (American Conference of Governmental Industrial Hygienists)

Group A1: confirmed human carcinogen.
Group A2: suspected human carcinogen.
Group A3: confirmed animal carcinogen with unknown relevance to humans.
Group A4: not classifiable as a human carcinogen.
Group A5: not suspected as a human carcinogen.

12. Ecological information

Ecotoxicity

No	CAS No :	Common name and synonyms	%	Aquatic Ecotoxicity short term	Aquatic Ecotoxicity long term	Terrestrial Ecotoxicity
1	68411-46-1	Alkylated diphenylamines	1.00 - 5.00	Not available.	Harmful to aquatic life with long lasting effects.	No known adverse effect to the environment.

Persistence and degradability. Bioaccumulative potential. Other adverse effects

No	CAS No :	Common name and synonyms	%	Persistent	Bio-accumulation	Aquatic ecotoxicity
1	68411-46-1	Alkylated diphenylamines	1.00 - 5.00	Yes	Yes	No

Degradability: N/A

Mobility in soil: N/A

13. Disposal considerations

Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

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14. Transport information

	TDG	DOT	IMDG	IATA
UN Number	NR	NR	NR	NR
Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard class(es)				
Packing group				

Canada - ERAP

Not applicable

United States - Reportable Quantities (RQ)

Not applicable

Transport in bulk (according to Annex II of the International Convention for the Prevention of Pollution From Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), and the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code)):
N/A

Marine pollutant: Not applicable

Exemption for limited quantity: Not applicable

Other exemptions:

Special precautions: Not applicable

15. Regulatory information

Canada

No	CAS No :	Common name and synonyms	%	DSL	NDSL	NPRI
1	68411-46-1	Alkylated diphenylamines	1.00 - 5.00	X		

United States

No	CAS No :	Common name and synonyms	%	TSCA	PROP-65	RTK
1	68411-46-1	Alkylated diphenylamines	1.00 - 5.00	X		

The classification of the product and the SDS were developed in accordance with HPR 2015 (rev. 2022) and HCS 2024.

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16. Other information

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Version: 4

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