



BRODI SPECIALTY PRODUCTS LTD.  
 3175 14th Avenue, Unit 1  
 Markham, Ontario, L3R 0H1  
 Canada  
 1-877-744-0751

**PRODUCT: BRO-SOLV-X NATURAL**

**CODE: 7284**

**SECTION 01: IDENTIFICATION**

Supplier identifier..... BRODI SPECIALTY PRODUCTS LTD.  
 3175 14th Avenue, Unit 1  
 Markham, Ontario  
 Canada  
 L3R 0H1  
 1-877-744-0751  
 Product identifier..... BRO-SOLV-X NATURAL  
 Product code..... 7284  
 Emergency telephone number..... CANUTEC 24-hour number (613-996-6666).  
 Product use..... Electrical, citrus based equipment descaler.

**SECTION 02: HAZARD IDENTIFICATION**



Hazard classification..... Flammable Liquids — Category 3. Skin Irritation — Category 2. Skin Sensitizer — Category 1. Aspiration Hazard — Category 1.  
 Signal word..... DANGER.  
 Hazard statement..... H226 Flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H304 May be fatal if swallowed and enters airways.  
 Precautionary statements..... P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharge. P261 Avoid breathing fume/mist/vapours/spray. P264 Wash hands thoroughly after handling. P280 Wear protective gloves/protective clothing/eye protection/face protection. P272 Contaminated work clothing should not be allowed out of the workplace. P370+P378 In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P363 Wash contaminated clothing before reuse. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P321 Specific treatment (see section 4 of SDS). P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P331 Do NOT induce vomiting. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. P501 Dispose of contents/container to an approved waste disposal plant.  
 Other hazards..... None.

**SECTION 03: COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	CAS #	WT. %
Hydrotreated light petroleum distillates	64742-47-8	80-85
D-limonene	5989-27-5	15-20

**SECTION 04: FIRST-AID MEASURES**

Routes of exposure  
 Inhalation..... Remove to fresh air. If irritation persists, consult a physician.  
 Ingestion..... Never give anything by mouth to an unconscious person. Do not induce vomiting; aspiration hazard. Dilute with 1-2 glasses of water. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Call a physician or poison control center immediately.  
 Skin contact..... Promptly wash skin thoroughly with soap and water and rinse for 15 minutes. Remove contaminated clothing and launder before reuse. If irritation develops, get medical aid.  
 Eye contact..... Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.  
 Most important symptoms and effects, both acute and delayed . The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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**SECTION 05: FIRE-FIGHTING MEASURES**

Extinguishing media..... Do not use water jet as an extinguisher, as this will spread the fire. Use water spray or fog, foam, carbon dioxide or dry chemical.

Hazardous combustion products..... The substances/groups of substances mentioned can be released in case of fire.: Carbon oxides. Harmful vapours.

Special protective equipment and precautions Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. Move containers from fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.

Further information..... Vapors are heavier than air and may flow along surfaces to remote ignition sources and flash back . Contaminated extinguishing water must be disposed of in accordance with official regulations.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures Use personal protective clothing. Eliminate all sources of ignition. Ventilate area if indoors. Restrict access to area until completion of clean up. Evacuate personnel to safe areas. Ensure clean up is conducted by trained personnel only .

Environmental precautions..... Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods.

Methods and materials for containment and cleaning up Ventilate area. For large amounts: Pump off product. . Contain and absorb spilled liquid with non combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal. Flush with water. Do not flush into surface water or sanitary sewer system. Contaminated absorbent material may pose the same hazards as the spilled product . Do not place into containers where ignition sources such as cigarettes or other ignition sources may be discarded. Dispose of absorbed material in accordance with regulations.

**SECTION 07: HANDLING AND STORAGE**

Handling precautions..... Use good industrial hygiene practices in handling this material. Do not eat, drink or smoke when using this product . Avoid contact with skin and eyes. Containers should be grounded when being emptied.

Storage needs..... Keep in a dry, cool and well-ventilated place. Keep containers tightly closed when not in use.

Materials to avoid..... Keep away from oxidizing agents.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL	NIOSH
Hydrotreated light petroleum distillates	200 ppm	500 ppm	200 ppm	500 ppm		not available
D-limonene	not available	not available	not available	not available		not available
Engineering controls.....	Good general ventilation (typically 10 air changes per hour) should be used .					
Individual protection measures						
Eye/type.....	Safety glasses with side-shields.					
Gloves/type.....	Wear chemical resistant protective gloves.					
Respiratory/type.....	Generally not required. Wear respiratory protection if ventilation is inadequate.					
Clothing/type.....	Wear suitable protective clothing. Normal work clothing (long sleeved shirts and long pants) is recommended.					
Hygiene measures.....	Handle in accordance with good industrial hygiene and safety practice. Remove soiled clothing and wash it thoroughly before reuse. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities.					

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Appearance..... liquid.

Color..... orange.

Odour..... citrus.

Odour threshold..... no data available.

pH..... not applicable.

Melting point (°C)..... not applicable.

Freezing point (°C)..... no data available.

Initial boiling point (°C)..... 160.

Flash point (°C), Method..... 40, Tag closed cup.

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**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

Evaporation rate.....	no data available.
Upper flammability limit (% vol).....	6.
Lower flammability limit (% vol).....	0.8.
Vapour pressure (mm Hg).....	no data available.
Vapour density (air=1).....	> 1.
Relative density/Specific Gravity.....	0.79.
Water solubility.....	insoluble.
Solubility in other solvents.....	no data available.
Partition coefficient — n-octanol/water.....	no data available.
Auto ignition temperature (°C).....	> 200 °C.
Thermal decomposition temperature.....	no data available.
Viscosity.....	thin liquid.

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity.....	No hazardous reactions if stored and handled as prescribed/indicated.
Chemical stability.....	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions.....	No hazardous reactions when stored and handled according to instructions. The product is chemically stable.
Conditions to avoid.....	Keep away from heat. Keep away from sources of ignition. Keep away from incompatibles such as oxidizing agents.
Incompatible materials.....	Strong oxidizing agents.
Hazardous decomposition products.....	Toxic gases/fumes may be given off during burning or thermal decomposition.

**SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Hydrotreated light petroleum distillates	not available	not available
D-limonene	>20 mg/l (inhalation-rat, 4h)	4,400 mg/kg (oral-rat); >5,000 mg/kg (dermal-rabbit)
Routes of exposure		
Inhalation.....	Inhalation of vapours may cause irritation to the nose, throat and respiratory tract.	
Ingestion.....	Ingestion of this product may cause nausea, vomiting and diarrhea. May cause irritation of the stomach. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury .	
Skin contact.....	Contact may cause skin irritation.	
Eye contact.....	Contact may cause eyes irritation.	
Acute effects		
Acute oral toxicity.....	Acute toxicity estimate > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single ingestion.	
Acute dermal toxicity.....	LD50 (Rabbit) : > 2,000 mg/kg. Method: calculation method. Virtually nontoxic after a single skin contact.	
Acute inhalation toxicity.....	Acute toxicity estimate : > 20 mg/l. Virtually nontoxic by inhalation. Method: calculation method.	
Skin corrosion/irritation.....	Result: Moderate skin irritation.	
Serious eye damage/eye irritation.....	Result: mild eye irritation.	
Respiratory or skin sensitisation.....	D-Limonene is known to be a skin sensitizer.	
Specific target organ toxicity (STOT) single exposure	Based on the available information there is no specific target organ toxicity to be expected after a single exposure.	
Aspiration hazard.....	Aspiration hazard. If swallowed, may be aspirated and cause lung damage.	
Chronic toxicity/effects		
Specific target organ toxicity (STOT) repeated exposure	No known significant effects or critical hazards.	
Carcinogenicity.....	No carcinogenic substances as defined by IARC, NTP, OSHA and/or ACGIH.	
Reproductive toxicity.....	No known significant effects or critical hazards.	
Germ Cell Mutagenicity.....	No known significant effects or critical hazards.	
Remarks.....	The product has not been tested. The statement has been derived from the properties of the individual components.	
Symptoms of Exposure.....	The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further important symptoms and effects are so far not known.	

**SECTION 12: ECOLOGICAL INFORMATION**

Ecotoxicity.....	May be dangerous for the environment. No data is available on the product itself. Should not be released into the environment. .
Persistence and degradability.....	The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

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**SECTION 12: ECOLOGICAL INFORMATION**

Bioaccumulative potential..... Biodegrades readily under aerobic and anaerobic conditions. No tendency to bioaccumulate.  
Mobility in soil..... No data available.  
Other adverse effects..... No data available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Disposal methods  
Waste disposal of substance..... Dispose of in accordance with national, state and local regulations.  
Container disposal ..... Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

**SECTION 14: TRANSPORT INFORMATION**

TDG classification..... UN1993, Flammable liquid, n.o.s. (hydrotreated light petroleum distillates), Class 3, PGIII .  
Note:..... Containers of 450 liters or less EXEMPT from the road transport of Dangerous Goods under the exemption of section 1.33.

**SECTION 15: REGULATORY INFORMATION**

WHMIS regulatory status..... This product has been classified in accordance with the hazard criteria of the Canadian Hazardous Products Regulations and the Safety Data Sheet contains all the information required by the Hazardous Products Regulations (WHMIS 2015). This product is WHMIS 2015 controlled.

**SECTION 16: OTHER INFORMATION**

Disclaimer..... The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.  
Prepared by: ..... CanChem Consultant  
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