SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	**BIOSOLVE #2**
Other means of identification	Not available
Recommended use	Citrus solvent and degreaser
Recommended restrictions	None known.
Manufacturer	Unica Canada inc. 90, J.A. Bombardier Boucherville, (Quebec) Phone: (450) 655-8168 Emergency Phone only, 24 hours: (613) 996-6666 (CANUTEC)

2. Hazards Identification

Physical hazards	Flammable liquids	Category 3
Health hazards	Skin corrosion/irritation	Category 2
	Sensitization, skin	Category 1
	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	

Label elements

Signal word Danger

Hazard statement

Flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.

Precautionary statement

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
Avoid breathing mist or vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection.

Response

In case of fire: Use appropriate media to extinguish. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting.
Wash contaminated clothing before reuse. Specific treatment (see this label).

Storage

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

Avoid release to the environment. Collect spillage

Supplemental information

None known.
Not applicable

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
d-Limonene		5989-27-5	15– 40
Naphta (Petroleum) Hydrotreated Heavy		64742-48-9	60 - 85

4. First Aid Measures

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see product label). Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin contact	
Eye contact	
Ingestion	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause redness and pain.
Most important symptoms/effects, acute and delayed	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed. Treat patient symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Keep away from sources of ignition. No smoking. Avoid contact with eyes and skin. Wear suitable protective clothing. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media	Carbon dioxide (CO_2). Alcohol resistant foam. Water fog. Dry chemical.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Clean surface thoroughly to remove residual contamination. Pick up and discard. Prevent entry into waterways, sewers, basements or confined areas. For waste disposal, see section 13 of the SDS.
Environmental precautions	Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Avoid contact with eyes, skin and clothing. Avoid breathing mist or vapor. Wear appropriate personal protective equipment. When using do not eat or drink. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Avoid prolonged or repeated skin contact with this material. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store in cool place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers. Keep out of reach of children. Do not store at temperatures above 120°F (49°C).

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Naphta (Petroleum) Hydrotreated Heavy	No data available	
d-Limonene	TWA	165.5 mg/m3 30 ppm

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.
Appropriate engineering controls	Not available.

Individual protection measures, such as personal protective equipment

Eye/face protection	Chemical splash goggles.
Skin protection	
Hand protection	Chemical resistants gloves. Confirm with a reputable supplier first.
Other	Wear appropriate chemical resistant clothing. As required by employer code. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
Respiratory protection	Not applicable.
Thermal hazards	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product.
General hygiene considerations	

9. Physical and Chemical Properties

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	Clear to yellow
Odor	Citrus odor
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	53 °C
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.795
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	

10. Stability and Reactivity

Reactivity	This product may react with oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	May be fatal if swallowed and enters airways.
Inhalation	May be fatal if swallowed and enters airways.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics	May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.
Information on toxicological effects	
Acute toxicity	May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Contains a potential skin sensitizer.

Components	**Species**	**Test Results**
Naphta (Petroleum) Hydrotreated Heavy	No data available	
d-Limonene		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	5600 mg/kg
	Rat	4400 mg/kg

Skin corrosion/irritation	Causes skin irritation.
Exposure minutes	Not available.
Erythema value	Not available.
Oedema value	Not available.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Corneal opacity value	Not available.
Iris lesion value	Not available.
Conjunctival reddening value	Not available.
Conjunctival oedema value	Not available.
Recover days	Not available.

Respiratory or skin sensitization

Respiratory sensitization	Not available.
Skin sensitization	May cause an allergic skin reaction. Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Germ cell mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Ingredients not listed below are not classified or listed by IARC, NTP, OSHA and ACGIH.

IARC Monographs. Overall Evaluation of Carcinogenicity

d-Limonene	Volume 73 - 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Specific target organ toxicity - single exposure	Not classified.

12. Ecological Information

Ecotoxicity See below

Components		**Species**	**Test Results**
Naphta (petroleum) Hydrotreated Heavy		No data available	
d-Limonene			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours

Persistence and degradability	No data available
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	No available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations

Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

U.S. Department of Transportation (DOT)

Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

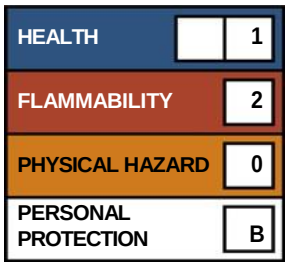
UN number	UN2319
Proper shipping name	TERPENE HYDROCARBONS, N.O.S.
Hazard class	(d-Limonene)
Packing group	3
Special provisions	III
Packaging exceptions	General Exempt (1.33)

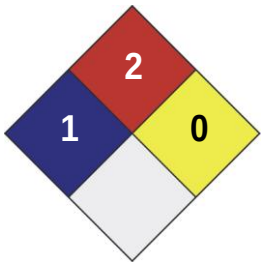
15. Regulatory Information

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
WHMIS status	Controlled
WHMIS classification	Class B - Division 3 - Combustible Liquid, Class D - Division 2B
WHMIS labeling	

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date

5 April 2017

Effective date

5 April 2017

Version 1.0

Further information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Prepared by

Unica Canada inc.. Phone: (450) 655-8168

Other information

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).