

SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product ID: BRODI PENTAGEL
Product Name: BRODI PENTAGEL
Revision Date: Mar 15, 2023 **Date Printed:** Sep 18, 2024
Version: 5.0 **Supersedes Date:** Jan 31, 2023
Distributor's Name: BRODI SPECIALTY PRODUCTS LTD.
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Product/Recommended Uses: Lubricant

SECTION 2) HAZARDS IDENTIFICATION

Classification

Aerosols - Category 2
Gases Under Pressure - Liquefied Gas
Aspiration Hazard - Category 1
Eye Irritation - Category 2
Skin Irritation - Category 2
Specific Target Organ Toxicity - Single Exposure (Narcotic Effects) - Category 3

Pictograms



Signal Word

Danger

Hazardous Statements - Physical

H223 - Flammable aerosol
H280 - Contains gas under pressure; may explode if heated

Hazardous Statements - Health

H304 - May be fatal if swallowed and enters airways
H319 - Causes serious eye irritation
H315 - Causes skin irritation
H336 - May cause drowsiness or dizziness

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read label before use.

Precautionary Statements - Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Do not pierce or burn, even after use.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective gloves, eye protection and face protection.

P261 - Avoid breathing mist, vapors or spray.

P271 - Use only outdoors or in a well-ventilated area.

Precautionary Statements - Response

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical attention.

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 - If skin irritation occurs: Get medical attention.

P362 - Take off contaminated clothing and wash it before reuse.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 - Call a POISON CENTER or doctor if you feel unwell.

Precautionary Statements - Storage

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.

P403 + P405 - Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

P501 - Dispose of contents and container in accordance with local, regional, national and international regulations.

Acute toxicity of less than one percent of the mixture is unknown

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
64742-52-5	MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC	30% - 40%
67-64-1	ACETONE	20% - 30%
142-82-5	N-HEPTANE	5% - 15%
124-38-9	CARBON DIOXIDE	5% - 10%
8042-47-5	MINERAL OIL	1% - 15%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). If you feel unwell/If concerned: Get medical advice/attention.

Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for 15 minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.

Skin Contact

Wipe off with a towel. Wash with soap and water. Get medical attention if irritation persists.

Ingestion

Ingestion is not a likely route of exposure. Get medical attention if you feel unwell.

Most Important Symptoms/Effects, Acute and Delayed

No data available.

Indication of Immediate Medical Attention and Special Treatment Needed

No data available.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam, alcohol foam, carbon dioxide, dry chemical, water fog.

Unsuitable Extinguishing Media

Water may be ineffective but can be used to cool containers exposed to heat or flame.

Specific Hazards in Case of Fire

Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents. Liquid content of container will support combustion. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention. Hazardous decomposition products include carbon dioxide, carbon monoxide, and other toxic fumes.

Fire-fighting Procedures

Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.

Special Protective Actions

Wear goggles and use a self-contained breathing apparatus. If water is used, fog nozzles are preferred.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Avoid breathing vapors. Ventilate area. Remove all sources of ignition.

Recommended Equipment

Wear safety glasses with side shields. Use of gloves approved from relevant standards that meet or are equivalent to OSHA 29 CFR 1910.132.

Personal Precautions

Avoid breathing vapors. Ventilate area.

Environmental Precautions

Stop spill/release if it can be done safely.

Methods and Materials for Containment and Cleaning up

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

SECTION 7) HANDLING AND STORAGE

General

Do not puncture or incinerate (burn) cans. Do not stick pins, nails, or any other sharp objects into opening on top of can. Do not spray in eyes. Do not take internally.

Ventilation Requirements

Use in a well-ventilated place.

Storage Room Requirements

Store and use in a cool, dry, well-ventilated area. Do not store above 120°F. See product label for additional information.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear safety glasses with side shields. Eyewash stations and showers should be available in areas where this material is used and stored.

Skin Protection

Use solvent-resistant protective gloves for prolonged or repeated contact.

Respiratory protection

Avoid breathing vapors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use an approved air line respirator or hood. A self-contained breathing apparatus is required for vapor concentrations above PEL/TLV limits.

Appropriate Engineering Controls

Ventilation should be sufficient to prevent inhalation of any vapors.

Chemical Name	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA STEL (mg/m3)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)
ACETONE	2400	1000				1		250
Carbon Dioxide	9000	5000				1		5000
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC	2000	500				1	[(L)[N159](L)[N800]]; [5 (I)[N159]5 (I)[N800]];	(L)[N159](L)[N800]
N-HEPTANE	2000	500				1		

Chemical Name	NIOSH STEL (ppm)	ACGIH STEL (mg/m3)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations	NIOSH TWA (mg/m3)	NIOSH TWA (ppm)
ACETONE			500	A4	URT & eye irr; CNS impair	A4; BEI	590	250
Carbon Dioxide	30000		30000		Asphyxia		9000	5000
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC				[A2[N159]A2[N800]]; [A4[N159]A4[N800]];	URT irr [N159]URT irr [N800]	[A2[N159]A2[N800]]; [A4[N159]A4[N800]];		

N-HEPTANE			500		CNS impair; URT irr		350	85
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Chemical Name	NIOSH STEL (mg/m3)	OSHA STEL (ppm)	NIOSH Carcinogen
ACETONE			
Carbon Dioxide	54000		
MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC			
N-HEPTANE			

(C) - Ceiling limit, (L) - Exposure by all routes should be carefully controlled to levels as low as possible, A4 - Not Classifiable as a Human Carcinogen, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, dam - Damage, impair - Impairment, irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	6.59 lb/gal
Density VOC	0.659 lb/gal
% VOC	10.00%
<hr/>	
Appearance	Clear aerosol spray
Odor Threshold	N.A.
Odor Description	Fuel oil like
pH	N.A.
Water Solubility	Insoluble
Flammability	Flash point below 73°F/23°C
Vapor Pressure	2.4 x 10 ⁴ Pa
Flash Point	-17°C
Kinematic Viscosity	<20.5 cSt (40°C)
Lower Explosion Level	2.5%
Upper Explosion Level	12.8%
Vapor Density	N.A.
Melting Point	N.A.
Freezing Point	N.A.
Low Boiling Point	56°C
High Boiling Point	N.A.

Decomposition Pt	N.A.
Auto Ignition Temp	N.A.
Evaporation Rate	Slower than ether

SECTION 10) STABILITY AND REACTIVITY

Stability

The product is stable under normal storage conditions.

Conditions To Avoid

High temperatures.

Incompatible Materials

No data available.

Hazardous Reactions/Polymerization

None known.

Hazardous Decomposition Products

Hazardous decomposition products may include carbon dioxide, carbon monoxide, and other toxic fumes.

SECTION 11) TOXICOLOGICAL INFORMATION

Skin Corrosion/Irritation

Causes skin irritation

Likely Route of Exposure

Inhalation, ingestion, skin absorption.

Serious Eye Damage/Irritation

Causes serious eye irritation

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity

Based on available data, the classification criteria are not met.

Reproductive Toxicity

Based on available data, the classification criteria are not met.

Respiratory/Skin Sensitization

Based on available data, the classification criteria are not met.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

Specific Target Organ Toxicity - Repeated Exposure

Based on available data, the classification criteria are not met.

Aspiration Hazard

May be fatal if swallowed and enters airways

Acute Toxicity

Based on available data, the classification criteria are not met.

Likely Routes of Exposure

Inhalation, Ingestion, Skin contact, Eye contact

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Based on available data, the classification criteria are not met.

Persistence and Degradability

Readily biodegradable.

Bioaccumulative Potential

Contains constituents with the potential to bioaccumulate.

Mobility in Soil

The substance is not PBT / vPvB.

Other Adverse Effects

No data available.

Results of the PBT and vPvB assessment

The substance is not PBT / vPvB.

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Under RCRA, it is the responsibility of the user of the product, to determine at the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

SECTION 14) TRANSPORT INFORMATION

	IATA Information	IMDG Information	U.S. DOT Information
UN number:	UN1950	UN1950	UN1950
Proper shipping name:	Aerosols, flammable	Aerosols	Aerosols
Hazard class:	2.1	2.1	2.1
Packaging group:	N.A.	N.A.	N.A.
Note / Special Provision:	(LTD QTY)	(LTD QTY)	(LTD QTY)

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
64742-52-5	MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED (MILD) HEAVY NAPHTHENIC	30% - 40%	SARA312, VOC, TSCA, ACGIH, OSHA
67-64-1	ACETONE	20% - 30%	CERCLA, SARA312, TSCA, RCRA, ACGIH, OSHA
142-82-5	N-HEPTANE	5% - 15%	SARA312, VOC, TSCA, ACGIH, OSHA

124-38-9	CARBON DIOXIDE	5% - 10%	SARA312, TSCA, ACGIH, OSHA
8042-47-5	MINERAL OIL	1% - 5%	SARA312, TSCA, ACGIH

SECTION 16) OTHER INFORMATION

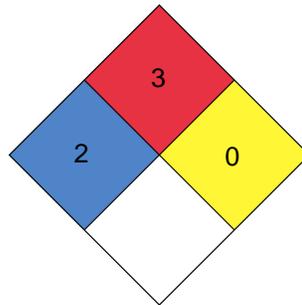
Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ- Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA- Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS

Health	/ 2
FLAMMABILITY	3
Physical Hazard	0
Personal Protection	A

NFPA



(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

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