Material Safety Data Sheet

Silicone Lubricant (Aerosol)

1. Product and company identification

Material uses : Other non-specified industry: Lubricants

Manufacturer : BG Products Inc.
701 S. Wichita Street
Wichita, KS, 67213, USA
www.bgprod.com

MSDS # : 416

Validation date : 12/15/2010.

Responsible name : Kolin Anglin, Environmental Coordinator
316-265-2686
msds@bgprod.com

In case of emergency : (800) 424-9300 (CHEMTREC)

2. Hazards identification

Physical state : Liquid. [Aerosol.]

Odor : Petroleum oil

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview : DANGER!

EXTREMELY FLAMMABLE AEROSOL. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Do not breathe vapor or mist. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Wash thoroughly after handling.

Potential acute health effects

No known significant effects or critical hazards.

Potential chronic health effects

Chronic effects : Contains material that may cause target organ damage, based on animal data.

Target organs : Contains material which may cause damage to the following organs: the nervous system, upper respiratory tract, skin, central nervous system (CNS).

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Eyes : Adverse symptoms may include the following:
irritation
redness

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

Name	CAS number	%
Distillates (petroleum), hydrotreated light	64742-47-8	30 - 60
n-Heptane	142-82-5	30 - 60
Propane	74-98-6	10 - 30
Butane	106-97-8	10 - 30

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

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 immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

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

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

Flammability of the product : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective equipment 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.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

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. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Empty containers retain product residue and can be hazardous.

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

Ingredient	Exposure limits
Distillates (petroleum), hydrotreated light	**ACGIH TLV (United States, 2/2010). Absorbed through skin.** TWA: 200 mg/m³ 8 hour(s).
n-Heptane	**ACGIH TLV (United States, 2/2010).** TWA: 400 ppm 8 hour(s). TWA: 1640 mg/m³ 8 hour(s). STEL: 500 ppm 15 minute(s). STEL: 2050 mg/m³ 15 minute(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 400 ppm 8 hour(s).

8. Exposure controls/personal protection

	TWA: 1600 mg/m³ 8 hour(s). STEL: 500 ppm 15 minute(s). STEL: 2000 mg/m³ 15 minute(s). **NIOSH REL (United States, 6/2009).** TWA: 85 ppm 10 hour(s). TWA: 350 mg/m³ 10 hour(s). CEIL: 440 ppm 15 minute(s). CEIL: 1800 mg/m³ 15 minute(s). **OSHA PEL (United States, 11/2006).** TWA: 500 ppm 8 hour(s). TWA: 2000 mg/m³ 8 hour(s).
Propane	**OSHA PEL 1989 (United States, 3/1989).** TWA: 1000 ppm 8 hour(s). TWA: 1800 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 1000 ppm 10 hour(s). TWA: 1800 mg/m³ 10 hour(s). **OSHA PEL (United States, 11/2006).** TWA: 1000 ppm 8 hour(s). TWA: 1800 mg/m³ 8 hour(s). **ACGIH TLV (United States, 2/2010).** TWA: 1000 ppm 8 hour(s).
Butane	**OSHA PEL 1989 (United States, 3/1989).** TWA: 800 ppm 8 hour(s). TWA: 1900 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 800 ppm 10 hour(s). TWA: 1900 mg/m³ 10 hour(s). **ACGIH TLV (United States, 2/2010).** TWA: 1000 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : 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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene 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.

Personal protection

Respiratory : 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.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

8. Exposure controls/personal protection

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

Physical state : Liquid. [Aerosol.]

Flash point : Closed cup: <-20°C (<-4°F)

Auto-ignition temperature : Not available.

Flammable limits : Lower: 1.2%
Upper: 9.5%

Color : Colorless.

Odor : Petroleum oil

pH : Not available.

Boiling/condensation point : Not available.

Melting/freezing point : Not available.

Specific gravity : 0.75

Vapor pressure : 517.2 kPa (3879 mm Hg) [20°C]

Vapor density : >1 [Air = 1]

Odor threshold : Not available.

Evaporation rate : Not available.

Viscosity : Kinematic (40°C (104°F)): >1 cm^2/s (>100 cSt)

Solubility : Very slightly soluble in the following materials: cold water and hot water.

Density : 6.259 (lbs/gal)

VOC content : 60 % (w/w)

Aerosol product

Type of aerosol : Spray

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Materials to avoid : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
n-Heptane	LC50 Inhalation Gas. LC50 Inhalation Vapor	Rat Rat	48000 ppm 103 g/m3	4 hours 4 hours
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m3	4 hours

Carcinogenicity

Classification

11. Toxicological information

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Distillates (petroleum), hydrotreated light	A3	-	-	-	-	-

12. Ecological information

Product/ingredient name	Result	Species	Exposure
n-Heptane	Acute LC50 375000 ug/L Fresh water	Fish - Tilapia mossambica - 99 mm - 10 g	96 hours
Distillates (petroleum), hydrotreated light	Acute LC50 2200 ug/L Fresh water	Fish - Lepomis macrochirus - 35 to 75 mm	4 days

Partition coefficient: n-octanol/water : Not available.

13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification		Consumer commodity	ORM-D			-
IMDG Class	UN1950	AEROSOLS, flammable	2.1	-		**Emergency schedules (EmS)** F-D, S-U **Remarks** Limited quantity
IATA-DGR Class	UN1950	AEROSOLS, flammable	2.1	-		**Passenger and Cargo Aircraft** Quantity limitation: 75 kg **Cargo Aircraft Only** Quantity limitation: 150 kg **Limited Quantities - Passenger Aircraft** Quantity limitation: 30 kg **Remarks**

14. Transport information

						Limited quantity

PG* : Packing group

15. Regulatory information

United States

HCS Classification : Flammable aerosol
Target organ effects

U.S. Federal regulations : **TSCA 8(a) IUR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Propane; Butane; Distillates (petroleum), hydrotreated light; n-Heptane
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Propane: Fire hazard, Sudden release of pressure; Butane: Fire hazard, Sudden release of pressure; Distillates (petroleum), hydrotreated light: Delayed (chronic) health hazard; n-Heptane: Fire hazard

State regulations

Massachusetts : The following components are listed: HEPTANE (N-HEPTANE); PROPANE; BUTANE

New York : None of the components are listed.

New Jersey : The following components are listed: n-HEPTANE; HEPTANE; PROPANE; BUTANE

Pennsylvania : The following components are listed: HEPTANE; PROPANE; BUTANE

Rhode Island : None of the components are listed.

United States inventory (TSCA 8b) : All components are listed or exempted.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid
Class B-5: Flammable aerosol.
Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : The following components are listed: Heptane; Hydrotreated light distillate; Propane; Butane

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.

16. Other information

Hazardous Material Information System (U.S.A.) :

Health	0
Flammability	0
Physical hazards	0

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 Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :

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Indicates information that has changed from previously issued version.

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