

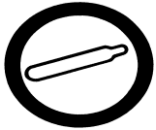
Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	OPEN GEAR
Product Identifier	53-E 102, Aerosol (400 ml)
MSDS No.	L-16E
Product Family	Lubricant
Manufacturer	IGS Aerosols GmbH, Im Hemmet 1, Wehr, Germany, D-79664, +49/7762-8007-0
Emergency Contact Information	CANUTEC (Canadian Transport Emergency Centre), (613) 996-6666, 24 Hours / 7 Days
Use	High load drive lubricant.

2. HAZARDS IDENTIFICATION

WHMIS Classification



Class A



Class B5



Class D2B

A - Compressed Gas; B5 - Flammable Aerosol; D2B - Toxic

Potential Health Effects

Route of Exposure Inhalation; skin contact; skin absorption; eye contact; ingestion.

Inhalation Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

Skin Contact May cause mild irritation.

Eye Contact EYE IRRITANT. Symptoms include sore, red eyes, and tearing.

Potential Environmental Effects

Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Registry No.	Concentration %	Other Identifiers
Naphtha (petroleum), hydrotreated light	64742-49-0	10-20	N/Av
Butane	106-97-8	20-30	N/Av
Propane	74-98-6	1-10	N/Av
Isobutane	75-28-5	1-10	N/Av

4. FIRST AID MEASURES

First Aid Procedures

Inhalation Move victim to fresh air. Call a Poison Control Centre or doctor if victim feels unwell. If unconscious, remove victim from exposure ensuring one's safety whilst doing so, check for breathing and apply artificial respiration if necessary.

Skin Contact Immediately flush with lukewarm, gently flowing water for 15-20 minutes.

Eye Contact Immediately and briefly flush with lukewarm, gently flowing water for 15-20 minutes, while holding eyelid(s) open. Transfer to hospital for specialist examination.

Ingestion Immediately call a Poison Control Centre or doctor. Treatment is urgently required. Transport to a hospital.

5. FIRE FIGHTING MEASURES

Flammable Properties	Extremely Flammable. Forms explosive air-vapour mixture. Can ignite if heated.
Suitable Extinguishing Media	Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
Specific Hazards Arising from the Chemical	In combustion, emits toxic fumes.
Protective Equipment and Precautions for Firefighters	Wear fire equipment at all times. Wear self-contained respirator. Wear protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use the Personal Protective Equipment recommended in Section 8 of this MSDS.
Environmental Precautions	Do not allow into any sewer, on the ground or into any waterway.
Methods for Containment and Clean-up	Do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand.

7. HANDLING AND STORAGE

Handling	Ensure sufficient ventilation in work area. Do not handle in a confined space. Smoking is forbidden.
Storage	Store in an area that is: cool, well-ventilated. Keep away from direct sunlight. Keep in original packaging. Keep away from sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	CAS Registry No.	TWA
Naphtha (petroleum), hydrotreated light	64742-49-0	170 ppm (8 hr)
Butane	106-97-8	1000 ppm (8 hr)
Isobutane	75-28-5	1000 ppm (8 hr)
Propane	74-98-6	1000 ppm (8 hr)

Engineering Controls Ensure there is sufficient ventilation in the area.

Personal Protective Equipment (PPE)

Eye/Face Protection Wear chemical safety goggles.

Skin Protection Solvent resistant protective clothing.
Nitrile gloves, permeation time > 8 hours.

Respiratory Protection Self-contained breathing apparatus must be available in case of emergency.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Aerosol
Colour	Grey.
Odour	Characteristic
Evaporative Rate	Moderate
Specific Gravity	0,72 g/ml @ 20 °C (68 °F)
Solubility in Water	Insoluble.
Flash Point	-60 °C (-76 °F)
Vapour Pressure	2500 hPa
Viscosity Kinematic (Aerosol)	255 cps @ 20°C (68 °F)
Viscosity Kinematic (Liquid)	116000 cps @ 20°C (68 °F)
Lower Flammable/Explosive Limit	1,4%
Upper Flammable/Explosive Limit	32%
Auto-ignition Temperature	510 °C (950 °F)
VOC (g/L)	345 g/L

10. STABILITY AND REACTIVITY

Chemical Stability	Normally stable.
Conditions to Avoid	Heat, open flames, sparks, static discharge and other ignition sources. Avoid direct sunlight.
Incompatible	Oxidizing agents (e.g. peroxides).
Materials	
Hazardous Decomposition Products	In combustion, emits toxic fumes of carbon dioxide / carbon monoxide.

11. TOXICOLOGICAL INFORMATION

LC50/LD50 Values

Ingredients	CAS Number	LD ₅₀ RAT (oral)	LC ₅₀ RAT
Naphtha (petroleum), hydrotreated light	64742-49-0	2000 mg/kg	5 mg/l (4hrs)
Butane	106-97-8	N/Av	658 g/cm (4hrs)
Propane	74-98-6	N/Av	> 20% (4hrs)
Isobutane	75-28-5	N/Av	14,2 % (4hrs)

Skin Irritation / Corrosion

Mild

Effects of Short-Term (Acute) Exposure

Inhalation

May cause drowsiness and mild irritation at contact area.

Skin Absorption

Mild irritation in contact area.

12. ECOLOGICAL INFORMATION

Persistence and Degradability Does not biodegrade readily.

Bioaccumulation / Accumulation Harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction.

14. TRANSPORT INFORMATION

Shipping Information

Regulation	UN No.	Shipping Name	Class	Packing Group
Canadian TDG	1950	Open-Gear (Aerosol)	2,1	N/Av

Other Transport Information

Special Shipping Information Not applicable

15. REGULATORY INFORMATION

Canada

Domestic Substances List (DSL)

All ingredients are listed on the DSL.

CEPA - National Pollutant Release Inventory (NPRI)

All ingredients are listed or exempted.

This Product has been classified in accordance with the hazard criteria of the controlled products.

USA

US OSHA Regulatory Status

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

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists

CERCLA: None

SARA Title III - Section 302: None

SARA Title III - Section 311/312: None

SARA Title III - Section 313: None

New Jersey Right To Know: Substance No. 1040 (Isobutane CAS 75-28-5) , Substance No. 0273 (Butane CAS 106-97-8) , Substance No. 1594 (Butane CAS 74-98-6)

Section 112: Hazardous Air Pollutants (HAPS): None.

16. OTHER INFORMATION

MSDS Prepared By	Product Manager,Environmental and MRO Solutions
Phone No.	1-888-592-5837
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