

SAFETY DATA SHEET

1. PRODUCT AND COMPANY INFORMATION

Product Name: ISOPROPYL GAS LINE ANTI-FREEZE

Manufacturers Code: **IPA, IPA5, IPA55**

Manufacturers Name: The Berkebile Oil Company Inc.

Address: PO BOX 715

Somerset, PA 15501

Information Phone: (814) 443-1656



Emergency Phone (CHEMTREC): **800-424-9300**

Product Use: USED TO CLEAN AND FLUSH AUTOMOTIVE RADIATOR SYSTEMS

2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

<u>CLASSIFICATION</u>	CATEGORY
Flammable Liquids	2
Eye Irritation	2A
Skin Corrosion	1A
Specific Target Organ Toxicity (Central Nervous System)	3

GHS Label elements, including precautionary statements.

Pictograms:



Signal word: Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation
H336 May cause drowsiness or dizziness.

Precautionary statement(s)

P501 Dispose of contents and container according to federal, state/provincial and municipal regulations.

P305 + P351 +	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention
P338 + P337 +	
P313 + P337 +	
P313	
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P370 + P378	In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction Call a doctor if you feel unwell
P312	Keep away from heat, sparks, open flames, and hot surfaces. No smoking.
P210	
P233	Keep container tightly closed.
P403	Store in a well-ventilated place.
P405	Store locked up
P264	Wash hands thoroughly after handling.
P280	Wear eye protection.
P261	Avoid breathing mist, spray, vapors
P271	Use only outdoors or in a well-ventilated area

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Chemical Name	CAS No.	Percent
Isopropyl alcohol	67-63-0	90-99%
Water	7732-18-5	1-10%

Synonyms : Isopropanol Anhydrous / Isopropyl Alcohol ACS Grade / Velvasol 425 / Value Grade Isopropanol / Isopropyl Alcohol

4. FIRST AID MEASURES

- | | |
|-------------------------|--|
| General advice | : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended. |
| If inhaled | : Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice. |
| In case of skin contact | : If on skin, rinse well with water. If on clothes, remove clothes. |

- In case of eye contact : Immediately flush eye(s) with plenty of water.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam Carbon dioxide (CO₂) Dry chemical

Unsuitable extinguishing media

High volume water jet

Specific hazards during firefighting

Do not allow run-off from fire fighting to enter drains or water courses. No hazardous combustion products are known

Hazardous combustion products

No hazardous combustion products are known

Specific extinguishing methods

Use a water spray to cool fully closed containers.

Further information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

For safety reasons in case of fire, cans should be stored separately in closed containments.

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

NFPA Flammable and Combustible Liquids Classification:

Flammable Liquid Class IB

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of aerosol.

Do not breathe vapors/dust.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes.

For personal protection see section 8.

Smoking, eating and drinking should be prohibited in the application area.

Take precautionary measures against static dis- charges.

Provide sufficient air exchange and/or exhaust in work rooms.

Open drum carefully as content may be under pressure.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well- ventilated place.

Containers which are opened must be carefully re- sealed and kept upright to prevent leakage.

Observe label precautions.

Electrical installations / working materials must comp- ly with the technological safety standards.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Isopropyl alcohol	67-63-0	TWA	200 ppm	ACGIH

		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m ³	NIOSH REL
		ST	500 ppm 1,225 mg/m ³	NIOSH REL
		TWA	400 ppm 980 mg/m ³	OSHA Z-1
		TWA	400 ppm 980 mg/m ³	OSHA P0
		STEL	500 ppm 1,225 mg/m ³	OSHA P0

Biological occupational exposure limits.

Component	CAS-NO.	Parameters	Sample Time	Biological Specimen	Permissible Concentration	Basis
Isopropyl alcohol	67-63-0	Acetone	End of shift at end of work week	Urine	400 mg/l	ACGIH - Biological Exposure Indices (BEI)

Personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally Required
In the case of vapour formation use a respirator with an approved filter.

Hand protection Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection: impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance : liquid

Colour	: colourless, clear
Odour	: alcohol-like
Odour Threshold	: 200 ppm
pH	: No data available
Freezing Point (Melting point/freezing point)	
: -88 °C (-126 °F)	
Boiling Point (Boiling point/boiling range)	
: 82 °C (180 °F)	
Flash point	: 12 °C (54 °F)
Evaporation rate	: 1.2 n-Butyl Acetate
Flammability (solid, gas)	: Flammable
Burning rate	: No data available
Upper explosion limit	: 12.7 %(V)
Lower explosion limit	: 2 %(V)
Vapour pressure	: 32 mmHg @ 20 °C (68 °F)
Relative vapour density	: 2 @ 20 °C (68 °F) AIR=1
Relative density	: 0.79 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 0.79 g/cm3 @ 20 °C (68 °F)
Bulk density	: No data available
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other sol- vents	: No data available

Partition coefficient: n- octanol/water
: log Pow: 0.05 @ 25 °C (77 °F)

Auto-ignition temperature : 399 °C

Thermal decomposition : No data available

Viscosity

Viscosity, dynamic : 2.4 mPa.s @ 20 °C (68 °F)

Viscosity, kinematic : 2.6 mm²/s @ 25 °C (77 °F)

10. STABILITY AND REACTIVITY

Reactivity

No dangerous reaction known under conditions of normal use.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Vapours may form explosive mixture with air.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Aldehydes Chlorine Ethylene oxide halogens isocyanates Strong acids strong oxidizing agents

Hazardous decomposition products

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity

Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Acute inhalation toxicity

Acute toxicity estimate : > 40 mg/l

Exposure time: 4 h Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

67-63-0:

Acute oral toxicity

: LD50 (rat): 5,500 mg/kg

Symptoms: ataxia, Vomiting, Pain, hypothermia, Co- ma, Dizziness

Acute inhalation toxicity

: LC50 (rat, male and female): > 10000 ppm

Exposure time: 6 h Test atmosphere: vapor

Symptoms: Central nervous system depression

GLP: yes

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Acute dermal toxicity

: LD50 (rabbit): > 12,800 mg/kg

Acute oral toxicity 64-17-5:

:

Assessment: The component/mixture is toxic after

single ingestion.

Remarks: No data available

Acute inhalation toxicity : Assessment: The component/mixture is toxic after short term inhalation.

Remarks: No data available

Acute dermal toxicity : Assessment: The component/mixture is toxic after single contact with skin. Remarks: No data available

12. ECOLOGICAL INFORMATION

Toxicity

Ecology - general: Classification concerning the environment: not applicable.

Ecology - air: TA-Luft Klasse 5.2.5.

Ecology - water: Ground water pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Not harmful to algae (EC50 (72h) >1000

mg/l). Inhibition of activated sludge.

Isopropanol 70% v/v 67-63-0

LC50 fishes 1	4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna)
LC50 fish 2	9640 mg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 2	13299 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate)
Threshold limit algae 2	1800 mg/l (72 h; Algae; Cell numbers)

Persistence and degradability

Isopropanol 70% v/v 67-63-0

Persistence and degradability:

Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.

Biochemical oxygen demand (BOD): 1.19 g O²/g substance

Chemical oxygen demand(COD): 2.23 g O²/g substance

ThOD 2.40 g O²/g substance

BOD (% of ThOD) 0.49 % ThOD

Bio-accumulative Potential

Isopropanol 70% v/v 67-63-0

Log Pow 0.05: (Experimental value)

Bio-accumulative potential: Low potential for bioaccumulation (Log Kow < 4)

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this

material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1219 Class: 3 Packing group: II

Proper shipping name: Isopropanol

Reportable Quantity (RQ): 5000 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 1219 Class: 3 Packing group: II EMS-No: F-E, S-D

Proper shipping name: ACETONE

IATA

UN number: 1219 Class: 3 Packing group: II

Proper shipping name: Isopropanol

15. REGULATORY INFORMATION

US Federal regulations

Isopropanol 70% v/v 67-63-0

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

International Regulations

Canada

Isopropanol 70% v/v 67-63-0

WHMIS Classification Regulated

EU-Regulations

No additional information available

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11

Xi; R36

R67

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

COMPILED BY:

Christopher Flick, (06/08/2020) The Berkebile Oil CO. Inc.