

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name SONIC Gas Line Anti-Freeze
Version # 01
Issue date 07-19-2012
Revision date -
Supersedes date -
CAS # Mixture
Product code 2753
Product use Gas line anti-freeze (stock item).
Synonym(s) Wood Alcohol * Gas Line Anti-freeze

Manufacturer information
Manufacturer Recochem Inc.
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Montreal, PQ
517-341-3550
Telephone
Supplier Federated Co-operatives Limited
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2. Hazards Identification

Physical state Liquid.
Appearance Colorless liquid.
Emergency overview DANGER! Flammable liquid.
May be fatal or cause blindness if swallowed. Harmful if inhaled or absorbed through skin. Causes skin, eye and respiratory tract irritation. May cause mild central nervous system effects.

OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

- Routes of exposure** Eye contact. Skin contact. Inhalation. Ingestion.
- Eyes** Causes eye irritation.
- Skin** Harmful if absorbed through skin. Causes skin irritation.
- Inhalation** Harmful if inhaled. Causes respiratory tract irritation. May cause mild central nervous system effects.
- Ingestion** May be fatal if swallowed. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness. Swallowing or vomiting of the liquid may result in aspiration into the lungs.

Target organs Eyes. Skin. Respiratory system. Central nervous system.

Chronic effects Organic solvents may be absorbed into the body by inhalation and cause permanent damage to the nervous system, including the brain.

Signs and symptoms Inhalation: Vapors may cause drowsiness and dizziness. Eye contact: Causes redness and pain. Skin contact: Defatting of the skin. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness. Prolonged and repeated exposure to high vapor concentrations, skin absorption or ingestion of methanol may result in visual disturbances, metabolic acidosis, headache, giddiness, nausea, insomnia, gastric disturbance, dizziness, and slow breathing. There have been severe cases reported of blindness, coma and death due to the ingestion of methanol. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

Potential environmental effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Methanol	67-56-1	60-100

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. Get medical attention promptly if symptoms occur after washing.

Skin contact Remove contaminated clothes and rinse skin thoroughly with water for at least 15 minutes. Get medical attention immediately.

Inhalation Move injured person into fresh air and keep person calm under observation. Get medical attention immediately.

Ingestion In case of accidents: Call an ambulance immediately! Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Only induce vomiting at the instruction of medical personnel. Lay on the side.

Notes to physician Treat symptomatically. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.

General advice 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.

5. Fire Fighting Measures

Flammable properties The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures.

Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media None known.

Protection of firefighters

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed. Solvent vapors may form explosive mixtures with air.

Protective equipment and precautions for firefighters Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Use standard firefighting procedures and consider the hazards of other involved materials. Containers close to fire should be removed or cooled with water.

6. Accidental Release Measures

Personal precautions If leakage cannot be stopped, evacuate area. Avoid any exposure. Wear suitable protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.

Environmental precautions Avoid discharge into drains, water courses or onto the ground unless authorized by permit.

Methods for cleaning up Remove sources of ignition. Beware of the explosion danger. Absorb spillage with non-combustible, absorbent material. Collect in containers and seal securely. For waste disposal, see section 13 of the MSDS.

7. Handling and Storage

Handling

Should be handled in closed systems, if possible. Avoid any exposure. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Do not smoke and do not spray near an open flame or other sources of ignition. Ground container and transfer equipment to eliminate static electric sparks. Observe good industrial hygiene practices.

Storage

Follow rules for flammable liquids. Do not store near heat sources or expose to high temperatures. Keep away from heat, sparks and open flame. Store in a cool, dark place. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methanol (CAS 67-56-1)	PEL	260 mg/m ³ 200 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	328 mg/m ³
		250 ppm
	TWA	262 mg/m ³ 200 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	328 mg/m ³
		250 ppm
	TWA	262 mg/m ³ 200 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Methanol (CAS 67-56-1)	STEL	310 mg/m ³
		250 ppm
	TWA	260 mg/m ³ 200 ppm

Engineering controls Use explosion-proof equipment. If enclosed handling cannot be guaranteed, ventilation and protective clothing must be used. Provide easy access to water supply or an emergency shower.

Personal protective equipment

Eye / face protection Wear approved safety goggles.

Skin protection Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

General hygiene considerations 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.

9. Physical & Chemical Properties

Appearance Colorless liquid.

Physical state Liquid.

Form	Liquid.
Color	Colorless.
Odor	Alcohol-like.
Odor threshold	2000 ppm
pH	Not applicable.
Vapor pressure	13.1 kPa
Vapor density	1.11 (Air=1)
Boiling point	148.1 °F (64.5 °C)
Melting point/Freezing point	-144.4 °F (-98 °C) / No data available.
Solubility (water)	Solubility in water.
Specific gravity	0.79
Flash point	51.8 °F (11 °C) Closed Cup
Flammability limits in air, upper, % by volume	16 %
Flammability limits in air, lower, % by volume	6 %
Auto-ignition temperature	725 °F (385 °C)
Evaporation rate	2.1 (Butyl acetate = 1)
Viscosity	No data available.
Percent volatile	100 % v/v
Molecular weight	Not applicable.
Other data	
Decomposition temperature	No data available.

10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions.
Conditions to avoid	Heat, sparks, flames.
Incompatible materials	Strong oxidizing agents. Strong acids. Metals. Alkali metals.
Hazardous decomposition products	At elevated temperatures: Carbon oxides. Formaldehyde.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Toxicological data		
Components	Species	Test Results
Methanol (CAS 67-56-1)		
<i>Acute</i>		
<i>Dermal</i>		
LD50	Rabbit	15800 mg/kg
<i>Inhalation</i>		
LC50	Rat	87.5 mg/l, 6 Hours
<i>Oral</i>		
LD50	Rat	5628 mg/kg
Sensitization	May cause eczema-like skin disorders (dermatitis).	
Acute effects	May be fatal or cause blindness if swallowed. Even small amounts (30-250 ml methanol) may be fatal. Symptoms are stomach ache, nausea, vomiting, dullness, visual disorder and blindness. Swallowing or vomiting of the liquid may result in aspiration into the lungs. Harmful if inhaled or absorbed through skin. May cause mild central nervous system effects.	
Local effects	Causes skin, eye and respiratory tract irritation.	

US. ACGIH Threshold Limit Values

Methanol (CAS 67-56-1)

Can be absorbed through the skin.

Chronic effects	Organic solvents may be absorbed into the body by inhalation and cause permanent damage to the nervous system, including the brain.
Carcinogenicity	No data available.
Mutagenicity	May cause heritable genetic damage.
Reproductive effects	No data available.
Teratogenicity	No data available.
Symptoms and target organs	Eye contact: Causes redness and pain. Skin contact: Defatting of the skin. Prolonged and repeated exposure to high vapor concentrations, skin absorption or ingestion of methanol may result in visual disturbances, metabolic acidosis, headache, giddiness, nausea, insomnia, gastric disturbance, dizziness, and slow breathing. There have been severe cases reported of blindness, coma and death due to the ingestion of methanol. Be aware that symptoms of lung edema (shortness of breath) may develop up to 24 hours after exposure.
Further information	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Methanol: Human exposure to methanol may result in illness, systemic poisoning, blindness, optic nerve damage and perhaps death, after being ingested, absorbed through the skin or inhaled. Death due to cardiac or respiratory failure has been reported in some cases from consumption of as little as 30 mls.

12. Ecological Information

Ecotoxicological data

Components	Species	Test Results
Methanol (CAS 67-56-1)		
Aquatic		
Crustacea	EC50 Water flea (<i>Daphnia magna</i>)	> 10000 mg/l, 48 hours
Fish	LC50 Fathead minnow (<i>Pimephales promelas</i>)	> 100 mg/l, 96 hours
Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Environmental effects	The product contains volatile organic compounds which have a photochemical ozone creation potential.	
Persistence and degradability	No data available.	
Bioaccumulation / Accumulation	No data available.	
Partition coefficient	No data available.	
Methanol		-0.77
Mobility in environmental media	The product is slightly soluble in water. The product contains organic solvents which will evaporate easily from all surfaces.	

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F U154: Waste Methyl alcohol
Disposal instructions	Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1230
Proper shipping name	Methanol
Hazard class	3
Subsidiary hazard class	6.1(PGI, II)
Packing group	II
Additional information:	
Special provisions	IB2, T7, TP2

Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1230
UN proper shipping name Methanol
Transport hazard class(es) 3
Subsidiary class(es) 6.1(PGI, II)
Packing group II
ERG code 3L

IMDG

UN number UN1230
UN proper shipping name METHANOL
Transport hazard class(es) 3
Subsidiary class(es) 6.1(PGI, II)
Packing group II
EmS No. F-E, S-D

TDG

Proper shipping name METHANOL
Hazard class 3
Subsidiary hazard class 6.1(PGI, II)
UN number UN1230
Packing group II
Special provisions 43

General Read safety instructions, MSDS and emergency procedures before handling.

15. Regulatory Information

US federal regulations This product is hazardous according to OSHA 29 CFR 1910.1200.
TSCA Section 4(a) Final Test Rules & Testing Consent Orders: Not regulated.
TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Methanol (CAS 67-56-1)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Methanol (CAS 67-56-1) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Methanol (CAS 67-56-1) Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)

Methanol: 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance (40 CFR 355, Appendix A) No

Section 311/312 (40 CFR 370) Yes

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15) Not controlled

Canadian regulations This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS status Controlled

WHMIS classification

B2 - Flammable Liquids
 D1B - Immediate/Serious-TOXIC
 D2A - Other Toxic Effects-VERY TOXIC
 D2B - Other Toxic Effects-TOXIC

WHMIS labeling**Inventory status**

Country(s) or region	Inventory name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Methanol (CAS 67-56-1) Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - New Jersey RTK - Substances: Listed substance

Methanol (CAS 67-56-1) Listed.

US. Massachusetts RTK - Substance List

Methanol (CAS 67-56-1) Listed.

US. New Jersey Worker and Community Right-to-Know Act

Methanol (CAS 67-56-1) 500 LBS

US. Pennsylvania RTK - Hazardous Substances

Methanol (CAS 67-56-1) Listed.

Mexico regulations

This product is dangerous according to Mexican regulations.

16. Other Information**Further information**

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2*
 Flammability: 3
 Physical hazard: 0

NFPA ratings

Health: 2
 Flammability: 3
 Instability: -

Disclaimer

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