TANNERGAS®

Safety Data Sheet

Prepared according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 01/01/2021 Supersedes: 06/25/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : TANNERGAS®

Product form : Mixture

Product code : UN1993

Other means of identification : FREEZE-BAN, METHANOL SOLUTION

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Anti-freeze for compressed air lines. Not for human or animal consumption.

1.3. Details of the supplier of the safety data sheet

Tanner Systems, Inc.

625 - 19th Avenue N.E
P.O. Box 488
St. Joseph, MN 56374, U.S.A.
Telephone: FACTORY, 800-461-6454
Email: info@tannersystems.com
Website: www.tannersystems.com

1.4. Emergency telephone number

Emergency number : CHEMTREC, 800-424-9300 (24 Hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq.	2	H225
Acute Tox. (Oral)	3	H301
Acute Tox. (Dermal)	3	H311
Acute Tox. (Inhalation)	3	H331
Eye Irrit.	2A	319
STOT SE RE	1	H370

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS02 GHS06 GHS08 GHS07

Signal word (GHS-US) : **Danger**

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapour
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H319 – Causes Serious Eye Irritation
H370 - Causes damage to organs

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P260 - Do not breathe fumes, mist, spray, vapours
P261 - Avoid breathing vapours, fume
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective gloves, protective clothing
P301+P310 - IF SWALLOWED: Immediately call a doctor, a poison center
P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P307+P311 - If exposed: Call a poison center/doctor
P308+P313 - If exposed or concerned: Get medical advice/attention
P311 - Call a doctor, a poison center
P312 - Call a doctor, a poison center if you feel unwell
P321 - Specific treatment (see first aid instructions on this label)
P330 - Rinse mouth
P361 - Take off immediately all contaminated clothing
P363 - Wash contaminated clothing before reuse
P370+P378 - In case of fire: Use dry extinguishing powder, carbon dioxide (CO2) to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Methyl alcohol	(CAS No) 67-56-1	60 - 100
2-Amino-2-methyl-1-propanol	(CAS No) 124-68-5	0.5 - 1.5

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes damage to organs. Toxic in contact with skin. Toxic if swallowed. Toxic if inhaled.

Symptoms/injuries after inhalation : Toxic if inhaled.

Symptoms/injuries after skin contact : Toxic in contact with skin.

Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.

Symptoms/injuries after ingestion : Toxic if swallowed.

Chronic symptoms : Causes damage to organs.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Vapours are heavier than air and may spread along floors. Vapours may travel long distances along ground before igniting/flashing back to vapour source.

Explosion hazard : Under fire conditions closed containers may rupture or explode.

Reactivity : Product may react with extinguishing media to produce toxic vapors or gases.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ventilate area. Keep upwind. Stop leak. No flames, no sparks. Eliminate all sources of ignition. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Prevent entry to sewers and public waters.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Exclude sources of ignition and ventilate the area. Waste from this product may be hazardous as defined under RCRA (40 CFR 261).

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapours. Use only in well-ventilated areas. Ensure proper electrical grounding procedures are in place. When opening drum give bung no more than one (1) turn and stop. Allow pressure to vent before proceeding.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, “Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents” or National Fire Protection Association (NFPA) 77, Recommended Practice on Static Electricity” or NFPA 70, “National Electric Code”.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep away from ignition sources. Store in a dry, cool and well-ventilated place designed for storage of flammable liquids. Use only D.O.T. approved containers.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters USA

Methyl alcohol (67-56-1)	
ACGIH TWA 200ppm	ACGIH STEL 250 ppm
OSHA PEL (TWA) 260 mg/m³	OSHA PEL (TWA) 200ppm
OSHA PEL (STEL) 325 mg/m³	OSHA PEL (STEL) 250ppm
2-Amino-2-methyl-1-propanol (124-68-5)	
Remark (ACGIH)	OELs not established
Remark (OSHA)	OELs not established

Control parameters CANADA

ALBERTA OELs (Occupational Health and Safety Code, Schedule 1, table 2)		
Methyl alcohol (67-56-1)	**STEL**	**328 mg/m³**
	TWA	**250ppm, 262 mg/m³ , 200 ppm**
BRITISH COLUMBIA OELs (Occupational Exposure Limits for Chemical Substances, Occupational health and Safety Regulation 296/97, as amended)		
Methyl alcohol (67-56-1)	**STEL**	**250 ppm**
	TWA	**200 ppm**
MANITOBA OELs (Reg. 217/2006, The Workplace Safety and Health Act)		
Methyl alcohol (67-56-1)	**STEL**	**250 ppm**
	TWA	**200 ppm**
ONTARIO OELs (Control of Exposure to Biological or Chemical Agents)		
Methyl alcohol (67-56-1)	**STEL**	**250 ppm**
	TWA	**200 ppm**
QUEBEC OELs (Ministry of Labor – Regulation Respecting Occupational health and safety)		
Methyl alcohol (67-56-1)	**STEL**	**328 mg/m³**
	TWA	**250ppm, 262 mg/m³ , 200 ppm**

Exposure Guidelines – USA

ACGIH Threshold Limit : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

Exposure Guidelines – CANADA

ALBERTA OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

BRITISH COLUMBIA OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

MANITOBA OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

ONTARIO OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

QUEBEC OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

SASKATCHEWAN OELs : Skin Designation

METHYL ALCOHOL (CAS 67-56-1) Can be absorbed through the skin.

The following are recommendations only for the use of PPE. These recommendations can not anticipate the variety of workplaces where the product will be used, nor how the product will be used in a variety of applications and processes. In determining appropriate PPE and engineering controls, it is the duty of the employer / user to evaluate their use of this product in accordance with the requirements of the local jurisdiction, and, if necessary, in conjunction with a professional industrial hygienist.

8.2. Exposure controls

Appropriate engineering controls : Provide ventilation designed for combustible atmospheres. Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

Hand protection	:	Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.
Eye protection	:	Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.
Skin and body protection	:	Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure. If there is a risk of liquid being splashed: Wear protective rubber clothing with splash guard. Impervious footwear must be worn.
Respiratory protection	:	Wear a NIOSH-approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with gas filter (type A2). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Pale yellow.
Odor	:	Slight alcohol.
Odor Threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	2.1
Melting point	:	No data available
Freezing point	:	-97.8 °C (-144°F)
Boiling point	:	64.5 °C (148°F)
Flash point	:	12 °C (54°F) [Method: TCC]
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 15 °C	:	1.105 (air=1)
Relative density @ 20°C (68°F)	:	0.791
Solubility	:	Water: 100 %
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Product may react with extinguishing media to produce toxic vapors or gases.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Sparks. Heat. Open flame. Ignition sources.

10.5. Incompatible materials

Oxidizing agents. Acids. Bases. May be corrosive to lead and aluminum.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Formaldehyde.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if inhaled.

Methyl alcohol (67-56-1)	
LD50 oral rat	5628 mg/kg
LD50 dermal rabbit	15800 mg/kg
LC50 inhalation rat (mg/l)	83.2 mg/l/4h
LC50 inhalation rat (ppm)	64000 ppm/4h
ATE CLP (oral)	100.000 mg/kg bodyweight
ATE CLP (dermal)	300.000 mg/kg bodyweight
ATE CLP (gases)	700.000 ppmv/4h
ATE CLP (vapours)	3.000 mg/l/4h
ATE CLP (dust,mist)	0.500 mg/l/4h

2-Amino-2-methyl-1-propanol (124-68-5)	
LD50 oral rat	2900 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not Classified
Specific target organ toxicity (single exposure) : Causes damage to organs.
Specific target organ toxicity (repeated exposure) : Causes damage to organs through repeated or long term exposure
Aspiration hazard : Not classified
Symptoms/injuries after inhalation : Toxic if inhaled.
Symptoms/injuries after skin contact : Toxic in contact with skin.
Symptoms/injuries after eye contact : Direct contact with the eyes is likely to be irritating.
Symptoms/injuries after ingestion : Toxic if swallowed.
Chronic symptoms : Causes damage to organs.

SECTION 12: Ecological information

12.1. Toxicity

The product is not classified as environmentally hazadous. However, this does not exclude the possiblity that large or fequent spills can have a harmful or damaging effect on the environment.

Product		**Species**	**Test Results**
METHYL ALCOHOL (CAS 67-56-1)			
Crustacea	EC50	Water Flea (Daphnia magna)	>1000 mg/l, 48 hours
Fish	LC50	Fathead Minnow (pimephales promelas)	>100 mg/l, 96 hours
2-Amino-2-methyl -1- propanol (CAS 124-68-5)			
Crustacea	EC50	Water Flea (Daphnia magna)	190mg/l, 48 hours
Fish	LC50	Lepomis macrochirus	193 mg/l, 96 hours
Algea	ErC50	Desmodesmus subspicatus	520 mg/l, 72 hours

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Refer to current EPA regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

Ground (US DOT) :

: UN1993 Flammable liquids, n.o.s., 3, II

Water (IMDG) : UN1993 Flammable liquids, n.o.s., 3, II

Air (IATA) : UN1993 Flammable liquids, n.o.s., 3, II

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Air transport

IATA Quantity Limitations Passenger and Cargo aircraft	:	1L (Ltd Qty); 5L
Packaging Instructions	:	Y341 (Ltd Qty); 353
IATA Quantity Limitations Cargo aircraft only	:	60L
Packaging Instructions	:	364

SECTION 15: Regulatory information

15.1. US Federal regulations

TANNERGAS®	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory	

Methyl alcohol (67-56-1)	
Listed on United States SARA Section 313	
CERCLA Reportable Quantity	5000 lb

15.2. International regulations

CANADA

TANNERGAS®	
All chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	B2: Flammable Liquid
	DB2: Toxic Material Causing Other Toxic Effects

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the informaton required by the HPR.

Canada DSL Inventory: Registration Status

Methanol (CAS 67-56-1) Listed

Canada NPRI (Supplier Notification required): Listed Substance

Methanol (CAS 67-56-1) Listed

Controlled Drugs and Substances Act

Not Regulated

Export Control List (CEPA 1999, Schedule 3)

Not Listed

Greenhouse Gases

Not Listed

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

Methanol (CAS 67-56-1)

Precursor Control Regulations

Not Regulated

15.3. US State regulations

California Proposition 65

This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause reproductive toxicity

Methyl alcohol (67-56-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	

Methyl alcohol (67-56-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

2-Amino-2-methyl-1-propanol (124-68-5)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes : Revision 1.0: New SDS Created.

Revision date : 01/01/2021

Other information : Author: JRW

NFPA health hazard 2 – May be harmful if inhaled or absorbed

NFPA fire hazard : 3 - Flammable liquid flash point below 100°F

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

HMIS III Rating

Health : 2 Moderate Hazard – Temporary or minor injury may occur
*Chronic Hazard – Chronic (long-term) health effects may result from repeated overexposure

Flammability : 3 Serious Hazard

Physical : 0 Minimal Hazard

Personal Protection :

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

The above information is believed to be accurate and represents the best information currently available to us. Users should make their own investigations to determine the suitability of the information for their particular purposes. This document is intended as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Tanner Systems, Inc makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with the respect to the information set forth herein or the product to which the information refers. Accordingly, Tanner Systems, Inc will not be responsible for damages resulting from use of or reliance upon this information.