SAFETY DATA SHEET
Ethanol, 2-(methylthio)-

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name	*Ethanol, 2-(methylthio)-*
Product number	*W1867*
Synonyms; trade names	*2-(Methylthio)ethanol 2-(Methylthio)ethan-1-ol*
CAS number	*5271-38-5*

Recommended use of the chemical and restrictions on use

Application	*Laboratory chemicals, Manufacture of substances.*
Uses advised against	*No specific uses advised against are identified.*

Details of the supplier of the safety data sheet

Supplier	*Synerzine* *5340 Highway 42* *Ellenwood, GA 30294* *(404) 524-6744* *info@synerzine.com*
Contact Person	*James Elliott*

Emergency telephone number

Emergency telephone	*INFOTRAC 1-800-535-5053 (Reference Contract # 102471)*

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards	*Flam. Liq. 4 - H227*
Health hazards	*Not Classified*
Environmental hazards	*Not Classified*

Label elements

Signal word	*Warning*
Hazard statements	*H227 Combustible liquid.*
Precautionary statements	*P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.* *P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.* *P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.* *P403+P235 Store in a well-ventilated place. Keep cool.* *P501 Dispose of contents/ container in accordance with national regulations.*

Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

3. Composition/information on ingredients

Substances

Product name	*Ethanol, 2-(methylthio)-*

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CAS number	*5271-38-5*
Chemical formula	*C3H8OS*
Composition comments	*Named component present at ≤100%.*

4. First-aid measures

Description of first aid measures

General information	*Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.*
Inhalation	*Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.*
Ingestion	*Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.*
Skin Contact	*Remove affected person from source of contamination. Rinse immediately with plenty of water.*
Eye contact	*Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.*
Protection of first aiders	*First aid personnel should wear appropriate protective equipment during any rescue.*

Most important symptoms and effects, both acute and delayed

General information	*See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.*
Inhalation	*Prolonged inhalation of high concentrations may damage respiratory system.*
Ingestion	*Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.*
Skin contact	*Prolonged contact may cause dryness of the skin.*
Eye contact	*May cause temporary eye irritation.*

Indication of immediate medical attention and special treatment needed

Notes for the doctor	*Treat symptomatically.*
Specific treatments	*No special treatment required.*

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	*The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.*
Unsuitable extinguishing media	*Do not use water jet as an extinguisher, as this will spread the fire.*

Special hazards arising from the substance or mixture

Specific hazards	*Containers can burst violently or explode when heated, due to excessive pressure build-up.*
Hazardous combustion products	*Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.*

Advice for firefighters

Protective actions during firefighting	*Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak.*

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Special protective equipment for firefighters	*Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.*

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	*No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.*

Environmental precautions

Environmental precautions	*Avoid discharge to the aquatic environment. Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).*

Methods and material for containment and cleaning up

Methods for cleaning up	*Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Reuse or recycle products wherever possible. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labeled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.*
Reference to other sections	*For personal protection, see Section 8. For waste disposal, see Section 13.*

7. Handling and storage

Precautions for safe handling

Usage precautions	*Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists.*
Advice on general occupational hygiene	*Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.*

Conditions for safe storage, including any incompatibilities

Storage precautions	*Store away from incompatible materials (see Section 10). Store in accordance with local regulations.*
Storage class	*Unspecified storage.*

Specific end uses(s)

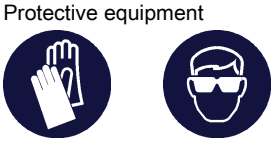
Specific end use(s)	*The identified uses for this product are detailed in Section 1.*

8. Exposure controls/Personal protection

Ingredient comments	*No exposure limits known for ingredient(s).*

Exposure controls

Protective equipment



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Appropriate engineering controls	*Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.*
Eye/face protection	*Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. The following protection should be worn: Chemical splash goggles.*
Hand protection	*Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.*
Other skin and body protection	*Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.*
Hygiene measures	*Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.*
Respiratory protection	*Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.*
Environmental exposure controls	*Not regarded as dangerous for the environment.*

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	*Clear liquid.*
Color	*Colorless to pale yellow.*
Odor	*Meaty Sulfurous Odor*
Odor threshold	*Not available.*
pH	*Not available.*
Melting point	*Not available.*
Initial boiling point and range	*170°C/338°F @ 760 mm Hg*
Flash point	*70°C/158°F Method: Closed cup.*
Evaporation rate	*Not available.*
Upper/lower flammability or explosive limits	*Not available.*
Vapor pressure	*Not available.*
Vapor density	*Not available.*
Relative density	*Not available.*
Solubility(ies)	*Not available.*
Partition coefficient	*Not available.*
Auto-ignition temperature	*Not available.*
Decomposition Temperature	*Not available.*
Viscosity	*Not available.*
Explosive properties	*Not available.*

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Oxidizing properties	*Not available.*
Molecular weight	*92.16 g/mol*

10. Stability and reactivity

Reactivity	*See the other subsections of this section for further details.*
Stability	*Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.*
Possibility of hazardous reactions	*No potentially hazardous reactions known.*
Conditions to avoid	*There are no known conditions that are likely to result in a hazardous situation.*
Materials to avoid	*No specific material or group of materials is likely to react with the product to produce a hazardous situation.*
Hazardous decomposition products	*Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.*

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Summary *Based on available data the classification criteria are not met.*

Acute toxicity - dermal

Summary *Based on available data the classification criteria are not met.*

Acute toxicity - inhalation

Summary *Based on available data the classification criteria are not met.*

Skin corrosion/irritation

Summary *Based on available data the classification criteria are not met.*

Serious eye damage/irritation

Summary *Based on available data the classification criteria are not met.*

Respiratory sensitization

Summary *Based on available data the classification criteria are not met.*

Skin sensitization

Summary *Based on available data the classification criteria are not met.*

Germ cell mutagenicity

Summary *Based on available data the classification criteria are not met.*

Carcinogenicity

Summary *Based on available data the classification criteria are not met.*

Reproductive toxicity

Summary *Based on available data the classification criteria are not met.*

Specific target organ toxicity - single exposure

Summary *Based on available data the classification criteria are not met.*

Specific target organ toxicity - repeated exposure

Summary *Based on available data the classification criteria are not met.*

Aspiration hazard

Summary *Based on available data the classification criteria are not met.*

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General information	*No specific health hazards known. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.*
Inhalation	*Prolonged inhalation of high concentrations may damage respiratory system.*
Ingestion	*Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.*
Skin Contact	*Prolonged contact may cause dryness of the skin.*
Eye contact	*May cause temporary eye irritation.*
Route of exposure	*Ingestion Inhalation Skin and/or eye contact*
Target Organs	*No specific target organs known.*

12. Ecological information

Ecotoxicity	*Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.*
Acute aquatic toxicity	
Summary	*Based on available data the classification criteria are not met.*
Chronic aquatic toxicity	
Summary	*Based on available data the classification criteria are not met.*

Persistence and degradability

Persistence and degradability	*The degradability of the product is not known.*

Bioaccumulative potential

Bio-Accumulative Potential	*No data available on bioaccumulation.*
Partition coefficient	*Not available.*

Mobility in soil

Mobility	*No data available.*

Other adverse effects

Other adverse effects	*None known.*

13. Disposal considerations

Waste treatment methods

General information	*The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.*
Disposal methods	*Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.*

14. Transport information

General	*The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).*

UN Number

UN No. (International)	*Not applicable.*
UN No. (DOT)	*NA1993*

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UN proper shipping name

Proper shipping name (International)	*Not applicable.*
Proper shipping name (DOT)	*COMBUSTIBLE LIQUID, N.O.S. (User to define)*

Transport hazard class(es)

Transport Labels (International)	*No transport warning sign required.*
DOT hazard class	*None*
DOT hazard label	*None*

Packing group

Packing group (International)	*Not applicable.*
DOT packing group	*III*

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	*Not applicable.*

15. Regulatory information

Regulatory References	*OSHA Hazard Communication Standard 29 CFR §1910.1200*

Inventories

Canada - DSL/NDSL
DSL

16. Other information

Abbreviations and acronyms used in the safety data sheet	*TDG: The transport of dangerous goods act* *IATA: International air transport association.* *ICAO: Technical instructions for the safe transport of dangerous goods by air.* *IMDG: International maritime dangerous goods.* *CAS: Chemical abstracts service.* *ATE: Acute toxicity estimate.* *LC_{50}: Lethal concentration to 50 % of a test population.* *LD_{50}: Lethal dose to 50% of a test population (median lethal dose).* *EC_{50}: 50% of maximal effective concentration.* *PBT: Persistent, bioaccumulative and toxic substance.* *vPvB: Very persistent and very bioaccumulative.*
Training advice	*Read and follow manufacturer's recommendations. Only trained personnel should use this material.*
Revision comments	*NOTE: Lines within the margin indicate significant changes from the previous revision.*
Revision date	*6/9/2020*
Revision	*2*
Supersedes date	*1/21/2016*

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SDS No.	*1060*
Hazard statements in full	*H227 Combustible liquid.*

End of Safety Data Sheet