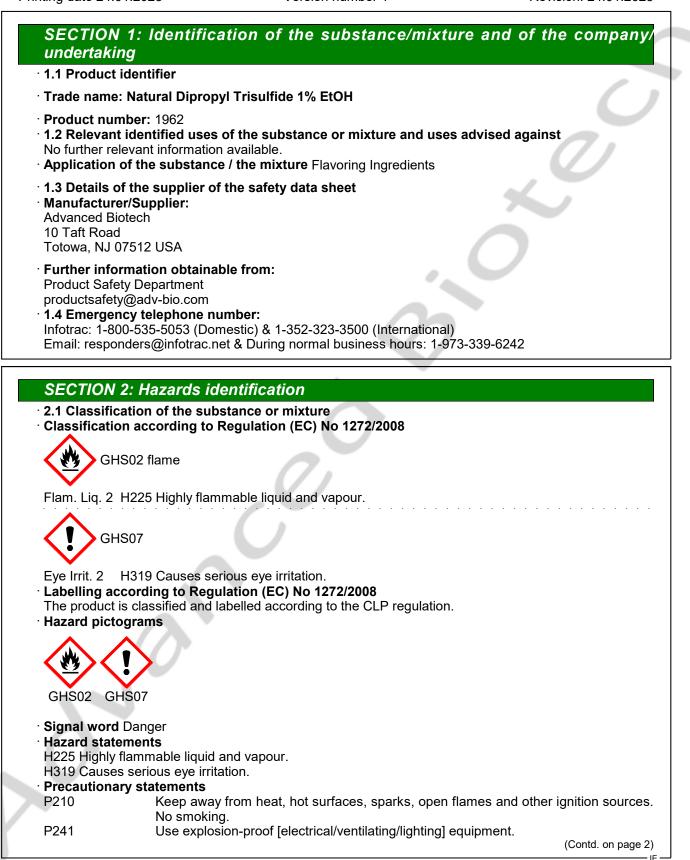


according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025



Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

(Contd. of page 1) P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with local/regional/national/international regulations. • 2.3 Other hazards • Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 64-17-5	Ethanol	50-100%	
EINECS: 200-578-6	substance with a Community workplace exposure limit		
CAS: 6028-61-1	Dipropyl Trisulfide	≤2.5%	
EINECS: 227-903-4	Acute Tox. 4, H302	1	
 Additional information: For the wording of the listed hazard phrases refer to section 16. 			

SECTION 4: First aid measures

• 4.1 Description of first aid measures

- · General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Immediately rinse with water.

• After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing: If symptoms persist consult doctor.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- · Suitable extinguishing agents:
- CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- 5.3 Advice for firefighters
- · Protective equipment: No special measures required.
- Additional information
- Cool endangered receptacles with water spray.

(Contd. on page 3)

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according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

(Contd. of page 2)

Trade name: Natural Dipropyl Trisulfide 1% EtOH

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.

- **6.2 Environmental precautions:** Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.
- **6.4 Reference to other sections** See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling No special precautions are necessary if used correctly.

• Information about fire - and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
- Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

CAS: 64-17-5 Ethanol

OEL Short-term value: 1000 ppm

• Additional information: The lists valid during the making were used as a basis.

- · 8.2 Exposure controls
- Appropriate engineering controls No further data; see section 7.
- Individual protection measures, such as personal protective equipment
 General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

(Contd. on page 4)



Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

(Contd. of page 3)

• Respiratory protection: Not required.

Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material should be based on consideration of the penetration times, rates of diffusion and the degradation

• Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be determined by the manufacturer of the protective gloves and has to be observed.

• Eye/face protection



Tightly sealed goggles

9.1 Information on basic physical and	chemical properties	
General Information	12	
Physical state	Liquid	
Colour:	According to product specification	
Odour:	According to product specification	
Odour threshold:	Not determined.	
Melting point/freezing point:	Undetermined.	
Boiling point or initial boiling point an	nd boiling	
range	Undetermined.	
Flammability	Highly flammable.	
Lower and upper explosion limit		
Lower:	3.5 Vol % (CAS: 64-17-5 Ethanol)	
Upper:	15 Vol % (CAS: 64-17-5 Ethanol)	
Flash point:	20.1 °C	
Auto-ignition temperature:	425 °C (CAS: 64-17-5 Ethanol)	
Decomposition temperature:	Not determined.	
рН	Not determined.	
Viscosity:		
Kinematic viscosity	Not determined.	
Dynamic:	Not determined.	
Solubility		
water:	Fully miscible.	



Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

	(Contd. of page 4
Partition coefficient n-octanol/water (log va	
Vapour pressure at 20 °C:	59 hPa (CAS: 64-17-5 Ethanol)
Vapour pressure at 50 °C:	280 hPa
Density and/or relative density	
Density at 20 °C:	0.8-0.83 g/cm ³
Relative density	Not determined.
Refractive Index	
Vapour density	Not determined.
9.2 Other information	
Appearance:	
Form:	Liquid
Important information on protection of he	ealth
and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of
.	explosive air/vapour mixtures are possible.
Solvent content:	
Organic solvents:	99.0 %
VOC (EC)	99.00 %
Solids content:	0.0 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical haz	zard
classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Highly flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit	
flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity

• 10.1 Reactivity No further relevant information available.

· 10.2 Chemical stability

• Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

(Contd. on page 6)

ΪE



according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

(Contd. of page 5)

- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral LD50 80,000-160,000 mg/kg (rat)

- · Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Causes serious eye irritation.
- · Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

(Contd. on page 7)

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

(Contd. of page 6)

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information		
 · 14.1 UN number or ID number · ADR, IMDG, IATA 	UN1170	
 14.2 UN proper shipping name ADR 	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	
·IMDG	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	
	ETHANOL SOLUTION	
 14.3 Transport hazard class(es) 		
ADR		
Class	3 (F1) Flammable liquids.	
· Label · IMDG, IATA	3	
· Class · Label	3 Flammable liquids. 3	
· 14.4 Packing group · ADR, IMDG, IATA	11	
· 14.5 Environmental hazards:	Not applicable.	
14.6 Special precautions for user	Warning: Flammable liquids.	
 Hazard identification number (Kemler code) EMS Number: 	: 33 F-E,S-D	
• Stowage Category	А	
• 14.7 Maritime transport in bulk according to		
IMO instruments	Not applicable.	
	(Contd. on page 8)	



Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

	(Contd. of page 7)
· Transport/Additional information:	
· ADR	
 Limited quantities (LQ) 	1L
 Excepted quantities (EQ) 	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· Transport category	2
Tunnel restriction code	D/E
·IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL
-	SOLUTION), 3, II

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation. · Hazard pictograms GHS02 GHS07 · Signal word Danger · Hazard statements H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. · Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof [electrical/ventilating/lighting] equipment. P241 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store in a well-ventilated place. Keep cool. P403+P235 Dispose of contents/container in accordance with local/regional/national/international P501 regulations. Directive 2012/18/EU · Named dangerous substances - ANNEX I None of the ingredients is listed. · Seveso category P5c FLAMMABLE LIQUIDS • Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t (Contd. on page 9)



according to Regulation (EC) No 1907/2006, Article 31

Printing date 24.01.2025

Version number 1

Revision: 24.01.2025

Trade name: Natural Dipropyl Trisulfide 1% EtOH

(Contd. of page 8) • Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t • REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

 DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

 Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

 Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases H302 Harmful if swallowed.
- · Department issuing SDS: Product safety department

• Contact: Product Safety Department

productsafety@adv-bio.com

· Abbreviations and acronyms: ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative ATE: Acute toxicity estimate values Flam. Liq. 2: Flammable liquids - Category 2 Acute Tox. 4: Acute toxicity - Category 4 Eye Irrit. 2: Serious eye damage/eye irritation - Category 2