



MATERIAL SAFETY DATA SHEET

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1- Chemical Product Information and Company Identification.

Product Name: : 2-Nitroethanol reference standard, AnStan[®].
Synonym: : 2-Nitro-1-ethanol.
Product code: : BS14896.
CAS Number: : 625-48-9.
Company Name: : Briti Scientific.
Company Address: : Plot No:78/B/13, SY-79,Phase-VI, Jeedimetla,Hyderabad-500 055.
Telangana, India.

Section 2- Composition / Information on Ingredients.

CAS No.	Chemical Name	Mol. Formula
625-48-9.	2-Nitro-1-ethanol.	C ₂ H ₅ NO ₃ .

Section 3- Hazards Identification.

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation: Category 2

Serious Eye Damage/Eye Irritation: Category 2

Specific target organ toxicity (single exposure): Category 3

Target Organs - Respiratory system.

Label Elements

Signal Word

Warning

Hazard Statements

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

IF ON SKIN: Wash with plenty of soap and water.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.

Eyes

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 advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

None identified

Section 4- First Aid Measures.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.

Skin Contact: Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion: Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects: Difficulty in breathing. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Notes to Physician: Treat symptomatically

Section 5- Fire Fighting Measures.

Suitable Extinguishing Media: Water spray, carbon dioxide (CO₂), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media: No information available.



Flash Point: > 112 °C / > 233.6 °F.
Method - No information available.
Autoignition Temperature: No information available.

Explosion Limits

Upper No data available
 Lower No data available

Sensitivity to Mechanical Impact: No information available.

Sensitivity to Static Discharge: No information available.

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO₂).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

Section 6- Accidental Release Measures.

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions: Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up:

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

Section 7- Handling and Storage.

Handling: Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials, Strong oxidizing agents, Strong bases, Acid anhydrides, Acid chlorides.

Section 8- Exposure Control/Personal Protection.

Exposure Guidelines: This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Engineering Measures: Ensure that eyewash stations and safety showers are close to the work station location. Ensure adequate ventilation, especially in confined areas.



Personal Protective Equipment

Eye/face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection: No protective equipment is needed under normal use conditions

Hygiene Measures:

Handle in accordance with good industrial hygiene and safety practice

Section 9- Physical and Chemical Properties.

Appearance: Colorless to Red to Green clear liquid.

Odor: No information available.

Odor Threshold: No information available.

pH: No information available.

Melting Point/Range: -80 °C.

Boiling Point/Range: 197 °C.

Flash Point: No information available.

Evaporation Rate: No information available.

Flammability (solid,gas): Not applicable.

Flammability or explosive limits

Upper No information available.

Lower No information available.

Vapor Pressure: No information available.

Density: 1.27 g/ml.

Solubility: Soluble in water.

Partition coefficient; n-octanol/water: No data available.

Autoignition Temperature: No data available.

Decomposition Temperature: No data available.

Viscosity: No data available.

Molecular formula: C₂H₅NO₃.

Molecular Weight: 91.07 g/mol.

Section 10- Stability and Reactivity.

Reactive Hazard: None known, based on information available

Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible products. Keep away from open flames, hot surfaces and sources of ignition

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂).



Hazardous Polymerization: Hazardous polymerization does not occur.

Hazardous Reactions: None under normal processing.

Section 11- Toxicological Information.

Acute Toxicity

Product Information: See actual entry in RTECS for complete information.

Toxicologically Synergistic Products: No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation: Irritating to eyes, respiratory system and skin.

Sensitization: No information available.

Mutagenic Effects: No information available.

Reproductive Effects: No information available.

Developmental Effects: No information available.

Teratogenicity: No information available.

STOT - single exposure: Respiratory system.

STOT - repeated exposure None known

Aspiration hazard No information available.

Symptoms / effects, both acute and delayed: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Endocrine Disruptor Information: No information available.

Other Adverse Effects: The toxicological properties have not been fully investigated.

Section 12- Ecological Information.

Ecotoxicity: Do not empty into drains.

Persistence and Degradability: Persistence is unlikely.

Bioaccumulation/ Accumulation: No information available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13- Disposal Considerations.

Waste Disposal Methods: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Section 14- Transport Information.

DOT: Not regulated

TDG: Not regulated

IATA: Not regulated

IMDG/IMO: Not regulated



Section 15- Regulatory Information.

Legend:

TSCA - Toxic Substances Control Act, (40 CFR Part 710).

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable.

U.S. Federal Regulations

SARA 313: Not applicable.

SARA 311/312 Hazard Categories See section 2 for more information.

CWA (Clean Water Act): Not applicable.

Clean Air Act: Not applicable.

OSHA - Occupational Safety and Health Administration: Not applicable.

CERCLA: Not applicable.

California Proposition 65: This product does not contain any Proposition 65 chemicals.

Section 16- Other Information.

Briti Scientific provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

