

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Normalin
SYNONYMS: None
PRODUCT CODES: SNS-NM004

MANUFACTURER: Azer Scientific, Inc.
ADDRESS: 701 Hemlock Rd, Morgantown, PA 19543

CHEMTREC PHONE: 800-424-9300
SUPPORT: 610-524-5810
FAX: 610-901-3046

PRODUCT USE: Tissue fixative
PREPARED BY: CB

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION: Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2; Serious eye damage/irritation Category 1



Signal Word: Danger!

Hazard Phrases	
H225	Highly flammable liquid and vapor.
H315	Causes skin irritation.
H320	Causes serious eye damage.

Precautionary Phrases	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P264	Wash hands thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.

SECTION 2 NOTES: 2 percent of the mixture consists of ingredients of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT:</u>	<u>CAS NO.</u>	<u>% WT</u>
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The specific chemical identity and exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

SKIN: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists.

INGESTION: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

INHALATION: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if victim feels unwell.

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABILITY OF THE PRODUCT:

FLASH POINT: 67°F

AUTOIGNITION TEMPERATURE: Not available for mixture

NFPA HAZARD CLASSIFICATION

HEALTH:1 FLAMMABILITY: 3 REACTIVITY: 0
OTHER:

HMIS HAZARD CLASSIFICATION

HEALTH:1 FLAMMABILITY: 3 REACTIVITY: 0
PROTECTION:

EXTINGUISHING MEDIA: Small fire - use DRY chemical powder, CO₂, water spray or alcohol resistant foam. Large fire - use alcohol resistant foam, water spray or fog. Cool all affected containers with flooding quantities of water.

NOT SUITABLE: Do not use water jet.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing to protect contact with skin and eyes. Keep unopened containers cool by spraying with water. Alcohols burn with a pale blue flame which may be difficult to see under normal lighting conditions. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide

UNUSUAL FIRE AND EXPLOSION HAZARDS: May produce a floating fire hazard. Vapors may travel to source of ignition and flash back. Vapors may settle on low or confined spaces.

SECTION 5 NOTES: Static ignition hazard can result from handling and use. Keep away from sparking tools.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Small spill and leak: Stop spill at the source if it is safe to do so. Absorb with an inert material. Collect into a suitable container for disposal.

Large spill and leak: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite

or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Provide ventilation.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING: Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

STORAGE: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight and ignition sources. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Handle empty containers with care because residual vapors are flammable.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS: General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.

RESPIRATORY PROTECTION: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

HANDS: Chemical-resistant, impervious gloves complying with an approved standard should be worn always when handling chemical products if a risk assessment indicates this is necessary. Recommended: Neoprene

ENVIRONMENTAL EXPOSURE CONTROLS: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

WORK HYGIENIC PRACTICES: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

EXPOSURE GUIDELINES:

OSHA Permissible Exposure Limits (PELs):

Reagent	OSHA PEL TWA	Note
Ingredient #1	1000 ppm (1,900 mg/m ³)	29 CFR 1910.1000 Table Z-1 Limits for Air Containments
Ingredient #2	15 mg/m	mist (total particulate)
Ingredient #2	5 mg/m	mist (respirable fraction)
Ingredient #3	25 mg/m	
Ingredient #5	360 mg/m	

ACGIH Threshold Limit values (TLVs):

Reagent	ACGIH PEL TWA	ACGIH STEL	Note
Ingredient #1		1000 ppm	Upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans
Ingredient #3	10 ppm	15 ppm	
Ingredient #4	2 mg/m Ceiling		
Ingredient #5	25 ppm Ceiling		

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, colorless
ODOR: Mild alcohol odor
PHYSICAL STATE: liquid
pH AS SUPPLIED: 6.5-7.5
BOILING POINT: 173°F
MELTING POINT: Not available
FREEZING POINT: Not available
VAPOR PRESSURE (mmHg): 160 mm Hg
VAPOR DENSITY (AIR = 1): Not available
EVAPORATION RATE: Not available
SOLUBILITY IN WATER: Soluble in water
MOLECULAR WEIGHT: Mixture
VISCOSITY: Not established

SECTION 9 NOTES: VOC content 51%

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions of use.
CONDITIONS TO AVOID (STABILITY): Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
INCOMPATIBILITY (MATERIAL TO AVOID): Oxidizing agents, Ammonia compounds
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Under normal conditions of storage and use, hazardous decomposition products should not occur. Hydrogen chloride gas may form if decomposition occurs.
HAZARDOUS POLYMERIZATION: No hazardous polymerization
CONDITIONS TO AVOID (POLYMERIZATION): N/A

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral: Formula 700: LD50 (oral, rat) >2000 mg/kg
Ingredient #1: LD50 (oral, rat) = 7060 mg/kg
Ingredient #2: LD50 (oral, rat) = 12600 mg/kg
Ingredient #3: LD50 (oral, rat) = 3310 mg/kg
Ingredient #5: LD50 (oral, rat) = 660 mg/kg
Inhalation: Formula 700: LC50 (Inhalation, rat) >20 mg/l/4hr
Ingredient #1: LC50 (Inhalation, rat) = 124.7 mg/l/4h
Ingredient #3: LC50 (Inhalation, rat) = 11.4 mg/l/4h
Ingredient #5: LC50 (Inhalation, rat) = 1300 ppm/4h
Dermal LD50: Formula 700: Rabbit LD50 >2000 mg/kg
Ingredient #2: Rabbit LD50 >10 g/kg
Ingredient #3: Rabbit LD50 = 260 mg/kg

Skin corrosion/irritation: Causes skin irritation
Eyes: Causes eye damage
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available

Carcinogenicity:

Ingredient #1: IARC: Carcinogenic to humans (in alcoholic beverages)
Ingredient #5: IARC: 1- Carcinogenic to humans, 2B Possibly carcinogenic to humans
NTP: 3 - Reasonably anticipated to be human carcinogen

Potential health effects

Inhalation: Harmful if inhaled. Causes respiratory tract irritation.

Ingestion: Harmful if swallowed.

Skin: Causes skin irritation.

Eyes: Causes eye damage

ROUTES OF ENTRY: Skin/eye contact, inhalation, and ingestion.

TARGET ORGANS: Eyes, Respiratory system

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY: May cause long term adverse effects on the environment.

PERSISTENCE AND DEGRADABILITY: Biodegradation is expected

BIOACCUMULATIVE POTENTIAL: Bioaccumulation is unlikely.

MOBILITY IN SOIL: No data available

PBT and vPvB ASSESSMENT: Not required.

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

RCRA HAZARD CLASS: Not classified

SECTION 13 NOTES:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

UN No.	UN1987
Proper Shipping Name	Alcohols, n.o.s. (ethanol)
Hazard Class	3
Packing Group	II

TDG

UN No.	UN1987
Proper Shipping Name	ALCOHOLS, N.O.S. (ETHANOL)
Hazard Class	3
Packing Group	II

UN No.	UN1987
Proper Shipping Name	ALCOHOLS, N.O.S. (ETHANOL)
Hazard Class	3
Packing Group	II

UN No.	UN1987
Proper Shipping Name	ALCOHOLS, N.O.S. (ETHANOL)

Hazard Class 3
Packing Group II

SECTION 15: REGULATORY INFORMATION

United States

HCS Classification: Flammable liquid, Toxic material, Irritating material

U.S. Federal regulations:

United States inventory (TSCA 8b): Listed on inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/311/312/313 hazardous chemicals: Ingredient #5 - Emission reporting

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

Flammable liquid, Acute Health Hazard, Chronic health hazard

CERCLA:

DEA List I & II Chemicals

(Precursor Chemicals): Not Listed

California Prop. 65



WARNING: This product can expose you to chemicals including Formaldehyde which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

CANADA

WHMIS (Canada): Class B-2: Flammable liquid
Class D-2B: Material causing other toxic effects.

Canadian lists:

CEPA Toxic substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

SECTION 16: OTHER INFORMATION

DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Azer Scientific be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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