MATERIAL SAFETY DATA SHEET For R&D use only. Not for drug, household or other uses.

Composition/Information on Ingredient

Cas: 127-17-3 Code: Μ

RTECS: UZ0829800

Click http://www.lookchem.com/cas-127/127-17-3.html for suppliers of this product.

Name: PYRUVIC ACID; 2-OXOPROPIONIC ACID **Other REC Limits:** NONE RECOMMENDED **OSHA PEL:** NOT ESTABLISHED Code:

Μ

OSHA STEL:

ACGIH TLV:

ACGIHSTEL:

NOT ESTABLISHED

Control Measures

Respiratory Protection:

PATHOGENS.

LD50LC50Mixture:

Skin: YES

IARC: NO

OSHA:

CARCINOGENS.

First Aid:

Spill Release Procedures:

Waste Disposal Methods:

UNIVERSAL PRECAUTIONS.

Other Precautions:

Flash Point Method:

N/P

N/A

T6

NRC/State LIC No:

B.P. Text: NOT GIVEN

Melt/Freeze Pt:

M.P/F.P Text: **NOT GIVEN**

Decomp Temp:

Decomp Text: UNKNOWN

Vapor Pres: NOT GIVEN

Vapor Density: **NOT GIVEN**

Spec Gravity: NOT GIVEN

PH: N/K

Viscosity:

NOT GIVEN

NOT GIVEN

Solubility in Water:

Corrosion Rate:

Stability Indicator:

Materials To Avoid:

CHLORIDE.

NO

UNKNOWN

Appearance and Odor:

Percent Volatiles by Volume:

Reactivity Data

Stability Condition To Avoid: AVOID SHOCK, FRICTION, HEAT.

Hazardous Decomposition Products:

Hazardous Polymerization Indicator:

Conditions To Avoid Polymerization:

Toxicological Information

Regulatory Information

Sara Title III Information: N/P

Federal Regulatory Information: N/P

State Regulatory Information: N/P

Other Information

Look for Chemicals

www.lookchem.com

Other Information:N/P

MSDS Transport Information

NONE. WILL NOT OCCUR. 4

Information:N/P

Information:N/P

AVOID CONTACT WITH COPPER, LEAD, MERCURY, SILVER, OTHER HEAVY METALS OR HEAVY METAL SALTS

MAY RELEASE TOXIC OXIDES OF CARBON, NITROGEN, SLUFUR AND SODIUM, FUMES OF HYDRAZOIC ACID, MERCURY, HYDROGEN

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is

guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from

handling or from contact with the above product. See reverse side of invoice or packing slip for additional

applicable to the product with regard to appropriate safety precautions. It does not represent any

WARRANTY

terms and conditions of sale.

N/P

N/K

YES

VOC Pounds/Gallon:

VOC Grams/Liter:

Evaporation Rate & Reference:

VARIABLE, DEPENDING ON COMPONENT

Volatile Org Content %:

Net Prop WT For Ammo:

Flash Point:

Flash Point Text: NONFLAMMABLE

Autoignition Temp:

Lower Limits: NOT GIVEN

Upper Limits: NOT GIVEN

Extinguishing Media: USE DRY CHEMICAL.

Fire Fighting Procedures:

Unusual Fire/Explosion Hazard:

SALTS CAN RESULT IN FORMATION OF EXPLOSIVES.

Physical/Chemical Properties

Autoignition Temp Text:

NONE SPECIFIED BY MANUFACTURER.

Handling And Storage Precautions:

Neutralizing Agent:

Ingestion:

Health Hazards Data

NOT GIVEN FOR PRODUCT AS A WHOLE

Route Of Entry Inds - Inhalation:

Carcinogenicity Inds - NTP:

Health Hazards Acute And Chronic:

Explanation Of Carcinogenicity:

Signs And Symptions Of Overexposure:

Medical Cond Aggravated By Exposure:

MAY BE AT INCREASED RISK FROM EXPOSURE.

Code:

Code: Μ

NP Code:

Code: Μ

Protective Gloves: IMPERVIOUS GLOVES, IE NITRILE **Eye Protection:** GOGGLES OR GLASSES W/SOLID SIDE SHIELDS

NONE REQUIRED UNDER NORMAL CONDITIONS **Ventilation:** LOCAL EXHAUST AND MECHANICAL (GENERAL) VENTILATION AS REQUIRED TO MAINTAIN EXPOSURE LEVELS. 3

Other Protective Equipment: Equipment A LAB COAT, CLINIC JACKET, GOWN, APRON OR SMOCK. DISPOSABLE CLOTHING STRONGLY RECOMMENDED. **Work Hygienic Practices:** WASH HANDS THOROUGHLY WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. **Supplemental Safety and Health:**

IF CONTAMINATED LAUNDRY IS SHIPPED OFF-SITE TO BE LAUNDERED, THE VENDOR MUST BE PREPARED TO HANDLE INFECTIOUS LAUNDRY UNDER THE OSHA BLOODBORNE PATHOGENS STANDARD. ALL HUMAN BLOOD AND CERTAIN HUMAN BO DY FLUIDS MUST BE TREATED AS IF KNOWN TO BE INFECTIOUS FOR HIV, HBV AND OTHER BLOODBORNE

INGESTION MAY CAUSE DILATION OF BLOOD VESSELS AND DROP IN BLOOD PRESSURE, NAUSEA, VOMITING. MAY CAUSE SYSTEMIC

THIS COMPOUND CONTAINS NO INGREDIENTS AT CONCENTRATIONS OF 0.1% OR GREATER THAT ARE CARCINOGENS OR SUSPECT

DROP IN BLOOD PRESSURE, EYE IRRITATION/REDNESS/PAIN, BLURRED VISION, MUCOUS MEMBRANE IRRITATION, COUGHING, SORE THROAT, VARIABLE PULSE, SHORTNESS OF BREATH, BRONCHITIS, PULMONARY EDEMA, HEADACHE, DIZZ INESS, FATIGUE, WEAKNESS,

PERSONS WITH NERVOUS SYSTEM DISORDERS, KIDNEY DISEASE OR IMPAIRED RENAL FUNCTION OR CHRONIC RESPIRATORY DISEASE

CONTAMINATED CLOTHING. WASH WITH SOAP AND WATER. IF IRRITATION PERSIST, GET MEDICAL ATTENTION. INH ALATION: REMOVE TO FRESH AIR. RESTORE BREATHING. GET MEDICAL ATTENTION. INGESTION: TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET

AVOID CONTACT WITH SKIN AND CLOTHING. CONTAIN SPILL. DECONTAMINATE CONTAMINATED SURFACES WITH APPROPRIATE

ANY BIOHAZARD THAT HAS NOT BEEN DISINFECTED MUST BE HANDLED ACCORDING TO LOCAL, STATE AND FEDERAL REGULATIONS.

HANDLE ALL SPECIMENS, CONTROLS AND TEST CARTRIDGES AS THOUGH CAPABLE OF TRANSMITTING INFECTIOUS DISEASE AS PER

IT IS RECOMMENDED THAT THE USER HANDLE POTENTIALLY INFECTIOUS HUMAN SOURCE MATERIAL IN A BIOLOGICAL SAFETY CABINET.

2 EYES: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN: REMOVE

WITH COUGHINGAND SORE THROAT. MAY CAUSE SKIN IRRITATION WITH REDNESS AND PAIN, DERMATITIS.

NAUSEA, PALAITATIONS, CYANOSIS, DERMATITIS, SKIN IRRITATION/REDNESS/PAIN, NAUSEA, VOMITING.

DISINFECTANT. MATERIAL USED TO WIPE UP SPILLS SHOULD BE DISPOSED OF AS BIOHAZARDOUS WASTE.

NONFLAMMABLE. USE STANDARD FIREFIGHTING PROCEDURES FOR SURROUNDING MATERIALS IN THE FIRE.

CAN REACT VIOLENTLY WITH SHOCK, FRICTION OR HEAT. CONTACT WITH COPPER, LEAD, MERCURY, SILVER, OTHER HEAVY METAL

THIMEROSAL-CONTAINING WASTE IS SUBJECT TO LANDFILL RESTRICTIONS; WASTE CODE D009.

OTHER PHYSICAL CONTAMIMENT DEVICES MAY BE REQURIED AS PROTECTIVE EQUIPMENT.

Fire and Explosion Hazard Information

MEDICAL ATTENTION IMMEDIATELY. IF VOMITING OCCURS, KEEP HEAD BELOW HIPS.

TOXIC EFFECTS. MAY CAUSE EYE IRRITATION WITH REDNESS, PAIN AND BLURRED VISION.MAY CAUSE M UCOUS MEMBRANE IRRITATION