1. PRODUCT DESCRIPTION
Product Name: Red Cabbage Solution
Product Code(s): 97-2101, 97-2141
Size: 250 mL
Chemical Name: None
CAS Number: 67-63-0
Formula: CH3CHOOCCH3
Synonyms: Isopropyl Alcohol
Distributor: Carolina Biological Supply Company
2700 York Road
Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec (Transportation Spill Response 24 hours): 800-424-9300

2. COMPOSITION/INFORMATION ON INGREDIENTS
Principle Hazardous Components: Isopropanol (CAS#67-63-0) 14.2%
Naugard BHT (2,6-di-tert-butyl-p-cresol) (CAS#128-37-0) 2.5%

TLV and PEL units: IPA: ACGIH-TLV 400 ppm (TWA) STEL 500 ppm
OSHA-PEL 400 ppm (TWA)
Naugard BHT: ACGIH-TLV 10mg/m3
OSHA-PEL 10mg/m3

3. HAZARD IDENTIFICATION
Emergency Overview: Do not ingest. Poison by ingestion and subcutaneous routes. When heated to decomposition it emits acrid smoke and fumes.
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

4. FIRST AID MEASURES
Emergency and First Aid Procedures:
Eyes - Flush with water for at least 15 minutes, raising and lowering eyelids occasionally. Get medical attention if irritation persists.
Skin - Thoroughly wash exposed area for at least 15 minutes. Remove contaminated clothing. Launder contaminated clothing before reuse. Get medical attention if irritation persists.
Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
Inhalation - Remove to fresh air. Give oxygen if breathing is difficult; give artificial respiration if breathing has stopped. Keep person warm, quiet, and get medical attention.

5. FIREFIGHTING PROCEDURES
Flash Point (Method Used): (TCC) 53°F; (TOC) 63°F (IPA)
NFPA Rating: None established
Extinguisher Media:
Use dry chemical, CO2 or appropriate foam.
Flammable Limits in Air % by Volume: IPA LEL: 2.5%, UEL: 12.0%
Autoignition Temperature: N/A
Special Firefighting Procedures:
Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Vapors are heavier than air and can travel distances to ignition source and flash back.

6. SPILL OR LEAK PROCEDURES
Steps to be Taken in Case Material is Released or Spilled:
   Ventilate area of spill. Eliminate all sources of ignition.
   Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

7. SPECIAL PRECAUTIONS
Precautions to be Taken in Handling or Storing: Keep away from heat, sparks, and open flame. This material should be kept in an area suitable for the storage of highly flammable liquids. Bond and ground containers when transferring liquid. Keep container closed when not in use. Do not take internally.
Other Precautions: Wash thoroughly after handling.

8. SPECIAL PROTECTION INFORMATION
Respiratory Protection (Specify Type):
   A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.
Ventilation:
   Local Exhaust: Yes
   Mechanical (General): Yes
   Special: No
   Other: No
Protective Gloves:
   Rubber, neoprene, PVC, or equivalent.
Eye Protection:
   Splash proof chemical safety goggles should be worn at all times.
Other Protective Clothing or Equipment:
   Lab apron, eye wash, and safety shower.

9. PHYSICAL DATA
Molecular Weight: No data available
Melting Point: N/A
Boiling Point: N/A
Vapor Pressure: N/A
Vapor Density (Air = 1): N/A
Specific Gravity (H2O = 1): N/A
Percent Volatile by Volume: N/A
Evaporation Rate (H2O = 1): N/A
Solubility in Water: N/A
Appearance and Odor: Cloudy, bergandy like color with a cooked cabbage odor.
Isopropanol odor.

10. REACTIVITY DATA
Stability: Stable
Conditions to Avoid: Heat, sparks, and open flame
Incompatibility(Materials to Avoid): Strong oxidizers, acetaldehyde, chlorine, ethylene oxide, acids, isocyanates.
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.
Hazardous Polymerization: Will not occur

11. TOXICITY DATA
Toxicity Data:
- Isopropanol orl-rat LD50: 5045 mg/kg, ihl-ratLDLo: 12000 ppm/8H
- Naugard BHT orl-rat LD50: >890 mg/kg

Effects of Overexposure:
Acute: See section 3
Chronic: IPA and Naugard: mutation data cited, reproductive data cited.

Not listed as causing cancer by IARC, NTP, or OSHA.
Conditions Aggravated by Overexposure: Pre-existing conditions of the skin or eyes may be aggravated.
Target Organs: Skin, eyes, liver, kidneys
Primary Route(s) of Entry: No data available

12. ECOLOGICAL DATA
EPA Waste Numbers: 2-Propanol(D001)

13. DISPOSAL INFORMATION
Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations.
Always contact a permitted waste disposer (TSD) to assure compliance.

14. TRANSPORT INFORMATION
Isopropanol, 3, UN1219, II, Flammable Liquid

15. REGULATORY INFORMATION
EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute

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<th>Components</th>
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<th>SARA EHS</th>
<th>Chemicals</th>
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16. ADDITIONAL INFORMATION
The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.
MATERIAL SAFETY DATA SHEET

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Glossary
ACGIH.......American Conference of Governmental Industrial Hygienists
CAS Number..Chemical Abstracts Service Number
CERCLA......Comprehensive Environmental Response, Compensation, and Liability Act
DOT..........U.S. Department of Transportation
IARC........International Agency of Research on Cancer
mppcf........million particles per cubic foot
N/A.........Not Available
NTP..........National Toxicology Program
OSHA........Occupational Safety and Health Administration
PEL.........Permissible Exposure Limit
ppm..........parts per million
RCRA........Resource Conservation and Recovery Act
SARA........Superfund Amendments and Reauthorization Act
TLV.........Threshold Limit Value
TSCA........Toxic Substances Control Act