

## ERYTHRULOSE

### Material Safety Data Sheet (MSDS)

#### 1. PRODUCT IDENTIFICATION

Product Name: erythulose  
INCI Name: D-erythulose  
Synonyms: Red raspberry sugar, L-1,3,4-Trihydroxy-butan-2-on  
CAS Number: 533-50-6  
EINECS Number: 208-567-8  
Origin: natural, modified

#### 2. PHYSICAL & CHEMICAL PROPERTIES

Melting Point: < -80°C (< -112°F), no defined point  
Boiling Point: > 180°C (356°F), exothermic decompos.  
Vapor Pressure: 1243 Pa (at 20 - 25°C)

Vapor Density, Air= 1: not determined  
Viscosity: approx. 350 CSt (mm<sup>2</sup>/s)  
Relative Density: 1.39 (at 20°C)

#### 3. STABILITY & REACTIVITY

Chemical Stability: stable under normal conditions  
Incompatibility: none known  
Hazardous Decomposition: none known  
Hazardous Polymerisation: not expected

#### 4. HANDLING & STORAGE

Avoid contact with eyes. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Avoid freezing or excessive heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep the container tightly closed and in a cool, well-ventilated place.

#### 5. ACCIDENTAL RELEASE MEASURES

Isolate spill area immediately. Keep unauthorized personnel away. Ventilate closed spaces before entering. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. Surface may become slippery after spillage. Use vacuum or broom sweeping and remove to disposal container. If damp, flush with water.

#### 6. EXPOSURE CONTROLS & PERSONAL PROTECTION

Respiratory Protection: No specific protective measures necessary.  
Protective Clothing: Gloves recommended to prevent prolonged skin contact. Safety glasses, goggles, or face shield recommended for eye protection.  
Other Protective Measures: Employees must practice good personal hygiene, washing exposed areas of skin several times daily and laundering contaminated clothing before re-use.

#### 7. HAZARDS IDENTIFICATION

General: No specific hazard known.  
Inhalation: Not applicable.

Eye Contact: May cause irritation. Irrigate eye with water for at least 15 to 20 minutes. Seek medical attention if symptoms persist.  
Skin Contact: Not expected to be a skin irritant  
Ingestion: No specific hazard known.  
Chronic Exposure: No specific hazard known.

#### 8. FIRST AID MEASURES

Eyes: Irrigate eyes with a heavy stream of water for at least 15 to 20 minutes. If irritation persists get medical attention.  
Skin: Wash exposed areas of the body with water.  
Inhalation: Remove from area of exposure. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.  
Ingestion: If gastrointestinal symptoms develop, consult medical personnel.

#### 9. FIRE FIGHTING MEASURES

Flash Point: 121°C (250°F), not flammable  
Autoignition Temperature: > 340°C (> 644°F)  
Fire Fighting Procedures: Firefighters should wear full fire-fighting turn-out gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

#### 10. TOXICOLOGICAL INFORMATION

General: not a hazardous material  
Acute LD50: >2000 mg/kg (rat, oral) for 16% erythulose  
Skin Contact: neither irritative nor sensitizing  
Mutagenicity: non mutagenic in AMES test

#### 11. DISPOSAL CONSIDERATIONS

Storage and disposal must be in accordance with applicable local, state & federal disposal regulations. Characterization and compliance with applicable laws are the responsibility solely of the generator.

#### 12. TRANSPORT INFORMATION

General: not a hazardous material  
DOT Shipping Name / Hazard Class: not applicable  
ADR/ RIC Code / Hazard Class: not applicable  
Sea Transport IMDG Code / Hazard Class: not applicable  
Air Transport IATA Code / Hazard Class: not applicable

#### 13. DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.

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