



## Safety Data Sheet

Material Name: ERYSTA® C40 Crystalline Erythritol FCC 70000215

SDS ID: Polyols-061

### Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

ERYSTA® C40 Crystalline Erythritol FCC 70000215

**Synonyms**

Erythritol

**Product Description**

Manufacture of food products.

**Details of the supplier of the safety data sheet**

Ingredion Incorporated

5 Westbrook Corporate Center

Westchester, IL 60154 USA

Phone: (708) 551-2600

Product Info/Customer Service: Business Hours: Mon -

Fri, 7:30 a.m. - 5:00 p.m. (CST)

Fax: (708) 551-2510

Ingredion Canada Corporation

1600-90 Burnhamthorpe Road West

Mississauga, ON L5B 0H9 Canada

Phone: (905) 281-7950

Product Info/Customer Service: Business Hours: Mon -

Fri, 7:30 a.m. - 6:00 p.m. (EST)

Fax: (905) 281-7951

Emergency Phone #: 1-800-424-9300 (CHEMTREC)

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### Section 2 - HAZARDS IDENTIFICATION

**Classification in accordance with paragraph (d) of 29 CFR 1910.1200.**

- Combustible Dust.

**GHS Label Elements**

**Symbol(s)**

None needed according to classification criteria.

**Signal Word**

WARNING!

**Hazard Statement(s)**

May form combustible dust concentrations in air.

**Precautionary Statement(s)**

**Prevention**

None needed according to classification criteria.

**Response**

None needed according to classification criteria.

**Storage**

None needed according to classification criteria.

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.



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### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
149-32-6	Erythritol	100

#### Component Related Regulatory Information

ACGIH TLVs, as Particulates Not Otherwise Classified: 10 mg/m<sup>3</sup> (inhalable fraction) 3 mg/m<sup>3</sup> (respirable fraction). OSHA PELs, as Particulates Not Otherwise Regulated: 15 mg/m<sup>3</sup> (total dust) 5 mg/m<sup>3</sup> (respirable fraction).

### Section 4 - FIRST AID MEASURES

#### Inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

#### Skin

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If skin irritation occurs: Get medical advice/attention.

#### Eyes

Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.

#### Ingestion

If a large amount is swallowed, get medical attention.

#### Most Important Symptoms/Effects

##### Acute

None.

##### Delayed

None.

### Section 5 - FIRE FIGHTING MEASURES

#### Extinguishing Media

##### Suitable Extinguishing Media

Carbon dioxide. Water spray. Foam.

##### Unsuitable Extinguishing Media

None.

#### Special Hazards Arising from the Chemical

May form combustible dust concentrations in air. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Use explosion-proof electrical equipment. Contact with combustible material may cause fire.

#### Fire Fighting Measures

Remove product from area of fire. Wet the material with water to limit dust emission or explosion. Suitable extinguishing media. Avoid inhalation of the product. Stay upwind/keep distance from source.



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### Section 6 - ACCIDENTAL RELEASE MEASURES

#### Personal Precautions, Protective Equipment and Emergency Procedures

See protective measures under point 7 and 8.

#### Methods and Materials for Containment and Cleaning Up

Avoid dust formation. Remove all sources of ignition. Ensure that the equipment is adequately grounded. Dispose of contents/container in accordance with local/regional/national/international regulations.

### Section 7 - HANDLING AND STORAGE

#### Precautions for Safe Handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take care for general good hygiene and housekeeping.

#### Conditions for Safe Storage, Including any Incompatibilities

None needed according to classification criteria.

Store in accordance with local/regional/national/international regulations. Store in a well-ventilated place. Keep container tightly closed. Store in a dry place. Avoid dust formation.

#### Incompatible Materials

Oxidizing agents. Combustible substance.

### Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Component Exposure Limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

#### Engineering Controls

Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

#### Individual Protection Measures, such as Personal Protective Equipment

##### Eye/face protection

If eye contact is likely, wear chemical resistant safety goggles.

##### Skin Protection

Protective clothing is not required under normal conditions.

##### Respiratory Protection

ACGIH TLV, as PNEC: 10 mg/m<sup>3</sup> (inhalable fraction); 3 mg/m<sup>3</sup> (respirable fraction). OSHA PEL, as PNEC: 15 mg/m<sup>3</sup> (total dust); 5 mg/m<sup>3</sup> (respirable fraction). Respiratory protection is not required under normal conditions of use. If respirable dusts are generated, respiratory protection may be needed.

##### Glove Recommendations

Protective gloves are not required under normal conditions.

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### Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Crystalline powder	<b>Physical State</b>	Solid
<b>Odor</b>	No detectable foreign odor	<b>Color</b>	White
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point</b>	119 - 123°C	<b>Boiling Point</b>	Not available
<b>Boiling Point Range</b>	Not available	<b>Freezing point</b>	Not available
<b>Evaporation Rate</b>	Not available	<b>Flammability (solid, gas)</b>	Not available
<b>Autoignition Temperature</b>	Not available	<b>Flash Point</b>	Not available
<b>Lower Explosive Limit</b>	Not available	<b>Decomposition temperature</b>	Not available
<b>Upper Explosive Limit</b>	Not available	<b>Vapor Pressure</b>	Not available
<b>Vapor Density (air=1)</b>	Not available	<b>Specific Gravity (water=1)</b>	Not available
<b>Solubility @25°C</b>	61 g/100mL water	<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Viscosity</b>	Not available	<b>Kinematic viscosity</b>	Not available
<b>Solubility (Other)</b>	Not available	<b>Density</b>	Not available
<b>KSt-value (bar x m/s)</b>	(See "Other Information" below)	<b>Taste</b>	Clean sweet taste
<b>Molecular Weight</b>	122 g/mol		

#### Other Information

Material Dust Explosivity Parameters: KSt-value (bar x m/s): 113. Maximum explosion pressure (P<sub>max</sub>) bar: 7.9. Maximum rate of pressure rise ((dp/dt)<sub>max</sub>) bar/s: 417. Testing in accordance with American Society of Testing Materials (ASTM E1226). This data provides a relative measure of deflagration characteristics used for design of explosion protection systems. Refer to NFPA 654, 68, and 69 for guidance on explosion mitigation.

### Section 10 - STABILITY AND REACTIVITY

#### Reactivity

No known hazardous reactions.

#### Chemical Stability

The product is stable under storage at normal ambient temperatures.



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### Possibility of Hazardous Reactions

None.

### Conditions to Avoid

Avoid dust formation. Remove all sources of ignition.

### Incompatible Materials

Oxidizing agents. Combustible substance.

### Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

## Section 11 - TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

#### Inhalation

May cause respiratory irritation.

#### Skin Contact

No data available.

#### Eye Contact

Irritation to eyes. Corneal opacity.

#### Ingestion

No data available.

### Acute and Chronic Toxicity

#### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

#### Erythritol (149-32-6)

Oral LD50 Rat 13500 mg/kg (females )

#### Product Toxicity Data

#### Acute Toxicity Estimate

Oral	> 2000 mg/kg
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#### Immediate Effects

No data available.

#### Delayed Effects

No data available.

#### Irritation/Corrosivity Data

No data available.

#### Respiratory Sensitization

No data available.

#### Dermal Sensitization

No data available.

#### Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

#### Germ Cell Mutagenicity

No data available.

#### Reproductive Toxicity

No data available.



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**Specific Target Organ Toxicity - Single Exposure**

No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

No data available.

**Aspiration hazard**

No data available.

**Medical Conditions Aggravated by Exposure**

No data available.

### Section 12 - ECOLOGICAL INFORMATION

**Ecotoxicity**

Avoid release to the environment.

**Component Analysis - Aquatic Toxicity**

No LOLI ecotoxicity data are available for this product's components.

**Persistence and Degradability**

Biodegradable.

**Bioaccumulative Potential**

No data available.

**Mobility**

No data available.

### Section 13 - DISPOSAL CONSIDERATIONS

**Disposal Methods**

Contain and dispose of waste according to local regulations.

**Component Waste Numbers**

The U.S. EPA has not published waste numbers for this product's components.

### Section 14 - TRANSPORT INFORMATION

**US DOT Information:**

**Further information:** Not regulated as a hazardous material.

**TDG Information:**

**Further information:** Not regulated as a hazardous material.

**ADR Information:**

No Classification assigned.

**IATA Information:**

No Classification assigned.

**ICAO Information:**

No Classification assigned.



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**IMDG Information:**

No Classification assigned.

**International Bulk Chemical Code**

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

**Section 15 - REGULATORY INFORMATION**

**U.S. Federal Regulations**

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

**FDA - Direct Food Additive**

No components of this material are listed.

**FDA - Food additives Generally Recognized as Safe(GRAS)**

No components of this material are listed.

**FDA - Food additives Generally Recognized as Safe(GRAS) –Select Committee on GRAS**

**Substances(SCOGS)**

No components of this material are listed.

**FDA - Food additives Permitted in Food on an Interim Basis**

No components of this material are listed.

**FDA - Substances Prohibited from use in human food**

No components of this material are listed.

**SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories**

No hazard categories applicable.

**U.S. State Regulations**

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)**

Not listed under California Proposition 65.

**Component Analysis - Inventory**

**Erythritol (149-32-6)**

US	CA	AU	CN	EU	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2
Yes	DSL	Yes	Yes	EIN	Yes	Yes	Yes	No

KR - REACH CCA	MX	NZ	PH	TH-TECI	TW	VN (Draft)
No	Yes	Yes	Yes	Yes	Yes	Yes



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### Section 16 - OTHER INFORMATION

#### Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania\*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL - Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

#### Other Information

##### Disclaimer:

The attached data has been compiled from sources which Ingredion Incorporated and the Ingredion group of companies, believe to be dependable and, to our knowledge and belief is accurate. However, Ingredion Incorporated and the Ingredion group of companies cannot make any warranty or representation respecting the accuracy or completeness of the data. We assume no responsibility for any liability or damages relating thereto, or for advising you regarding the protection of your employees, customers, or others. You should make your own tests to determine the applicability of such information to, or the suitability of any products for your specific use. Ingredion Incorporated and the Ingredion group of companies expressly disclaims all warranties, expressed or implied, including but not limited to, warranties of merchantability, accuracy, fitness for use or for a particular purpose, and noninfringement. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to sales of products by Ingredion Incorporated and the Ingredion group of companies. The INGREDION mark and logo are trademarks of the Ingredion group of companies.