



NEW DIRECTIONS AROMATICS

MATERIAL SAFETY DATA SHEET

SECTION: 1.1 PRODUCT IDENTIFICATION

Product Name: Vitamin C (Ascorbic Acid – Raw Material)
Chemical Name: 3-oxo-L-Gulofuranolactone
(chemical family: unsaturated hydroxylated gamma-Lactone vitamin)
Chemical Formula: C₆H₈O₆
Synonyms: Ascorbic acid; L-ascorbic acid, ascorbic acid USP-FCC, ascorbic acid coated type
EC, C-90 ascorbic acid
INCI Name: Ascorbic acid
CAS #: 50-81-7
Country of Origin: Canada

SECTION: 1.2 COMPANY IDENTIFICATION

Company: New Directions Aromatics Inc.
Address: 6781-Columbus Road, Mississauga. L5T 2G9 Canada
Telephone No: 905-362-1915
FAX: 905-362-1926

24 HOUR EMERGENCY TELEPHONE NUMBER: (613)-996-6666 CANUTEC

SECTION: 2. COMPOSITION / INFORMATION INGREDIENTS

Constituents:	Product Name	Chemical Name	CAS#	Chemical Formula
	Vitamin C	Ascorbic Acid(L-)	50-81-7	C ₆ H ₈ O ₆

SECTION: 3. HAZARDS IDENTIFICATION

Potential Acute Health Effect Slightly hazardous in case of eye contact (irritant), of inhalation (nuisance dust).
Potential chronic health Effects Carcinogenic Effects: N/A
Mutagenic effects: N/A
Teratogenic Effects: N/A
Development toxicity: N/A
Repeated or prolonged exposure is not known to aggravate medical condition.

SECTION: 4. FIRST AID MEASURES

Eye Contact: Check for remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie belt or waistband. Seek medical attention immediately.

SECTION: 5. FIRE FIGHTING MEASURES

Products of combustion Carbon oxides (CO, CO₂)
Fire fighting media and Small Fire: Use Dry chemical powder



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instructions: Large Fire: Use water spray, fog or foam, CO₂
Special Remarks on Fire Hazards: When heated to decomposition it emits acrid smoke and fumes.
Special remarks on Explosion Hazards: N/A

SECTION: 6. ACCIDENTAL RELEASE MEASURES

Small spill and leak Use appropriate tools to put the spilled solid in an appropriate waste container. Finish cleaning by spreading water on the containment surface and dispose of according to local and regional authority requirements.

Large spill and leak Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Personal protection in case of large spill Splash goggles, Gloves. Dust respirator, Lab coat.

SECTION: 7. HANDLING AND STORAGE

Precaution Keep away from heat. Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label.

Incompatibility Slightly reactive with metals

Storage: Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from heat and away from strong oxidizing agents.

SECTION: 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value (TLV).

Personal Protection

Eyes: Safety glasses
Body: Lab coat
Respiratory: No special protective clothing is required. Avoid inhalation of product.
Hands: Gloves
Feet: N/A

Exposure Limits: N/A.

SECTION: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White or Almost white Crystalline Powder (MW: 176.12 g/mole)
Odor/Taste Bitter Taste with no odor.
Solubility: Soluble in water
Color in Solution Clear
Relative Density: 1.60 – 1.70 (g/cc)
pH: 2.1 – 2.6
Specific Optical Rotation +20.5° ~ +21.5°
Physical State: Solid



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Boiling Range:	Not applicable
Melting/freezing Point:	190 – 192 deg. C
Process Method:	Two-step fermentation of glucose.
Assay:	95.0 – 100.5 %

SECTION: 10. STABILITY AND REACTIVITY

Stability:	Chemically stable.
Conditions to Avoid:	N/A
Materials to Avoid:	Slightly reactive with metals.
Corrosivity	N/A
Flammability:	May be Combustible liquid at High Temperature.
Hazardous Polymerization:	Will not occur.
Decomposition Products:	When heated to decomposition produces fumes of Carbon dioxide and carbon monoxide smoke.

SECTION: 11. TOXICOLOGICAL INFORMATION

Route of entry	Absorbed through skin, Eye contact, inhalation, ingestion.
Toxicity to animals	Acute oral toxicity (LD50): 11900 mg/kg [Mouse]
Acute effect on Humans	
Eyes:	Slightly hazardous in case of eye contact (irritant)
Skin:	N/A
Inhalation	Slightly hazardous in case of inhalation.
Ingestion	N/A
Chronic Effects on Humans	
Carcinogenic Effects:	N/A
Mutagenic effects:	N/A
Teratogenic Effects:	N/A
Development toxicity:	N/A

Repeated or prolonged exposure is not known to aggravate medical condition.

SECTION: 12. ECOLOGICAL INFORMATION

Eco-toxicity:	N/A
BOD5 and COD:	N/A
Product of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the product of Biodegradation	The products itself and its products of degradation are non toxic.

SECTION: 13. DISPOSAL CONSIDERATION

Waste Information:	Waste must be disposed of in accordance with local, provincial and federal regulations.
Waste stream	N/A

SECTION: 14. TRANSPORT INFORMATION

TDG Classification:	Not controlled under TDG Canada; Check appropriate authority
IATA Shipping (Air):	N/A; Check appropriate authority
IMDG Shipping	N/A; Check appropriate authority



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SECTION: 15. REGULATORY INFORMATION

WHMIS (Canada):	Not controlled	
Regulatory Lists	CEPA DSL: Ascorbic Acid (L-)	
Other Regulations:	EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.	
Other Classifications:	HCS (U.S.A.)	Not controlled under the HCS (USA)
	USA Regulatory Lists	No products were found
	DSCL (EEC)	This product is not classified according to the EU regulations.
HMIS (USA) Rating:	Health:	1
	Flammability:	1
	Reactivity:	0
	Personal Protection	a

SECTION: 16. OTHER INFORMATION

Revision Date: October 17, 2011

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SECTION: 17. DISCLAIMER

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CERTIFICATE OF ANALYSIS

Product: Vitamin C (Ascorbic Acid)
Lot No.: 16032-A12
Manufacturing Date: September, 2010
Best Before: September, 2013

<u>Properties</u>	<u>Specification</u>	<u>Result</u>
Appearance:	White or Almost white Crystalline Powder	Complies
Odor/Taste	Bitter Taste with no odor.	Complies
Solubility:	Soluble in water	Complies
Color in Solution	Clear	Complies
Relative Density:	1.60 – 1.70 (g/cc)	Complies
pH(5% w/v)	2.2 – 2.5	2.4
Specific Optical Rotation	+20.5° ~ +21.5°	+21.2°
Physical State:	Solid	Complies
Melting/freezing Point:	190 – 192 °C	191.0 °C

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CERTIFICATE OF ANALYSIS

Product: Vitamin C (Ascorbic Acid)
Lot No.: 16032-A13
Manufacturing Date: August 2010
Best Before: July 2012

<u>Properties</u>	<u>Specification</u>	<u>Result</u>
Appearance:	White or Almost white Crystalline Powder	Complies
Odor/Taste	Bitter Taste with no odor.	Complies
Solubility:	Soluble in water	Complies
Color in Solution	Clear	Complies
Relative Density:	1.60 – 1.70 (g/cc)	Complies
pH(5% w/v)	2.2 – 2.5	2.42
Specific Optical Rotation	+20.5° ~ +21.5°	+21.2°
Physical State:	Solid	Complies
Melting/freezing Point:	190 – 192 °C	190.4 °C

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CERTIFICATE OF ANALYSIS

Product: Vitamin C (Ascorbic Acid)
Lot No.: 16032-A14
Manufacturing Date: June 2011
Best Before: May 2014

<u>Properties</u>	<u>Specification</u>	<u>Result</u>
Appearance:	White or Almost white Crystalline Powder	Complies
Odor/Taste	Bitter Taste with no odor.	Complies
Solubility:	Soluble in water	Complies
Color in Solution	Clear	Complies
Relative Density:	1.60 – 1.70 (g/cc)	Complies
pH(5% w/v)	2.2 – 2.5	2.4
Specific Optical Rotation	+20.5° ~ +21.5°	+20.8°
Physical State:	Solid	Complies
Melting/freezing Point:	190 – 192 °C	191.0 °C

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