MATERIAL SAFETY DATA SHEET

Product Name: ST AIN FREE

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Revision Date: April 05, 2005

1. Product Identification

Synonyms: L-ascorbic acid; vitamin C; L-3-Ketothreohexuronic acid lactone
CAS No.: 50-81-7
Molecula r Weight: 176.13
Chemical F ormula: C6H8O6
Product Codes:
Natural Chemistry Inc. - 07400

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
L-Ascorbic Acid	50-81-7	100%	Yes

3. Hazards Identification

Emergency Overview

As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

Health Rating: 1 - Slight
Flammability Rating: 1 - Slight
Reactivity Rating: 0 - None
Contact Rating: 1 - Slight
Lab Protective Equip: GOGGLES; LAB COAT
Storage Color Code: Orange (General Storage)

Potential Health Effects

Ascorbic acid is relatively non-hazardous in routine industrial situations. It is not expected to present significant health risks to the workers who use it.

Inhalation:
May cause mild irritation to the respiratory tract.
Ingestion:
Large oral doses may cause gastrointestinal disturbances.
Skin Contact:
May cause mild irritation.
Eye Contact:
May cause mild irritation.
Chronic Exposure:
No information found.
Aggravation of Pre-existing Conditions:
No information found.

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4. First Aid Measures

Inhalation:
If inhaled, remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.
Skin Contact:
Wash exposed area with soap and water. Get medical advice if irritation develops.
Eye Contact:
Wash thoroughly with running water. Get medical advice if irritation develops.

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5. Fire Fighting Measures

Fire:
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source.
Explosion:
Not considered to be an explosion hazard.
Fire Extinguishing Media:
Use any means suitable for extinguishing surrounding fire.
Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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6. Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

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7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
None established.
Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.
Personal Respirators (NIOSH Approved):
For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
Skin Protection:
Wear protective gloves and clean body-covering clothing.
Eye Protection:
Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

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9. Physical and Chemical Properties

Appearance:
White crystals.
Odor:
Odorless.
Solubility:
33g/100g water.
Density:
1.65
pH:
3 for 5mg/L aqueous solution; 2 for 50mg/L aqueous solution.
% Volatiles by volume @ 21C (70F):
0
Boiling Point:
Not applicable.
Melting Point:
192C (378F) Slightly decomposes.

Vapor Density (Air=1):
No information found.
Vapor Pressure (mm Hg):
No information found.
Evaporation Rate (BuAc=1):
No information found.

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10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage. Aqueous solutions are rapidly oxidized by air.
Hazardous Decomposition Products:
May produce acrid smoke and irritating fumes when heated to decomposition.
Hazardous Polymerization:
Will not occur.
Incompatibilities:
Strong oxidizers and alkali hydroxides, alkalis, iron, copper, sodium salicylate, sodium nitrite, theobromine and methenamine.
Conditions to Avoid:
No information found.

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11. Toxicological Information

Oral (rat) LD50 11,900 mg/kg . Investigated as a tumorigen, mutagen, and reproductive effector.

--------\Cancer Lists\----------

Ingredient	---NTP Carcinogen--- Known	Anticipated	IARC Category
L-Ascorbic Acid (50-81-7)	No	No	None

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12. Ecological Information

Environmental Fate:
No information found.

Environmental Toxicity:
No information found.

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13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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14. Transport Information

Not regulated.

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15. Regulatory Information

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  --------\Chemical Inventory Status - Part 1\--------------------------
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  Ingredient                                      TSCA  EC   Japan
Australia
  ----------------------------------------------  ----  ---  -----  ---
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  L-Ascorbic Acid (50-81-7)                        Yes  Yes   Yes
Yes

  --------\Chemical Inventory Status - Part 2\--------------------------
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                                                         --Canada--
  Ingredient                                      Korea  DSL   NDSL
Phil.
  ----------------------------------------------  -----  ---   ----  --
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  L-Ascorbic Acid (50-81-7)                        Yes   Yes   No
Yes

  --------\Federal, State & International Regulations - Part 1\---------
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                                           -SARA 302-    ------SARA
313------
  Ingredient                               RQ    TPQ     List
Chemical Catg.
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  L-Ascorbic Acid (50-81-7)                  No    No      No          No

  --------\Federal, State & International Regulations - Part 2\---------
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                                                                -RCRA-    -TSCA-
  Ingredient                                 CERCLA     261.33     8(d)
  ----------------------------------------  ------     ------    ------
  L-Ascorbic Acid (50-81-7)                  No         No         No


Chemical Weapons Convention:  No     TSCA 12(b):  No     CDTA:  No
SARA 311/312:  Acute: No       Chronic: No   Fire: No  Pressure: No
Reactivity: No          (Pure / Solid)
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Australian Haz chem Code: None allocated.
Poison Schedule: None allocated.
WHMIS:
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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16. Other Information

NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0
Label Haz ard Warning:
As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.
Label Precautions:
None.
Label First Aid:
Not applicable.
Product Use:
Laboratory Reagent.
Revision In formation:
MSDS Creation Date: April 05, 2005

Disclaimer:
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