1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name:
Sorbic acid

Cat No:
S062

Cas No.:
110-44-2

Synonyms:
2, 4-Hexadienoic acid

Company Information:
LEONID CHEMICALS Pvt Ltd,

62/A-2, 1st Stage,

Yeshvanthpur Industrial Suburb,

Asoka puram School Road,

Bangalore -22, Karnataka, INDIA

Ph- +91-80-23378354

Fax: +918023378354/23377126

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
According to Regulation (EC) No1272/2008
Skin irritation (Category 2)
Eye irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)
According to European Directive 67/548/EEC as amended.
Irritating to eyes, respiratory system and skin.
Label elements
Pictogram
Signal word Warning
Hazard statement(s)
H315 Causes skin irritation.
H319 Causes serious eye irritation.

H335 May cause respiratory irritation.
Precautionary statement(s)
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Hazard symbol(s)
Xi Irritant
R-phrase(s)
R36/37/38 Irritating to eyes, respiratory system and skin.
S-phrase(s)
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: $C_6H_8O_2$
Molecular Weight: 112.13 g/mol
CAS-No.: 110-44-1

203-768-7 - Skin Irrit. 2; Eye Irrit. 2; STOT SE 3; H315, H319, H335
Xi, R36/37/38
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.
In case of skin contact
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
Environmental precautions
Do not let product enter drains.
Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.
Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.
Conditions for safe storage
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: 2 - 8 °C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment
Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand protection
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Handle with gloves.
Eye protection
Safety glasses with side-shields conforming to EN166
Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form: crystalline
Colour: white
Safety data
pH: 3.3 at 1.6 g/l at 20 °C
Melting point: 132 - 135 °C - lit.
Boiling point: 170 °C - Decomposes on heating.
Flash point: 127 °C - closed cup
Ignition temperature: no data available
Lower explosion limit: no data available
Upper explosion limit: no data available
Vapour pressure: 0.01 hPa at 20 °C
Density: 1.200 g/cm^3 at 20 °C
Water solubility: no data available
Partition coefficient: n-octanol/waterlog Pow: 1.858

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.
Conditions to avoid
Light.
Materials to avoid
Bases, Oxidizing agents, Reducing agents Bases, Oxidizing agents, Reducing agents
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Thermal decomposition
> 170 °C

11. TOXICOLOGICAL INFORMATION

Acute toxicity
LD50 Dermal - rabbit - > 1.000 mg/kg
Skin corrosion/irritation
Serious eye damage/eye irritation
Eyes - rabbit - Moderate eye irritation

Respiratory or skin sensitization
no data available
Germ cell mutagenicity
Genotoxicity in vitro - Hamster - Lungs
Sister chromatid exchange
Carcinogenicity
Carcinogenicity - rat - Subcutaneous
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Tumorigenic:Tumors at site or application.
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
no data available
Specific target organ toxicity - single exposure
Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Potential health effects
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional Information
RTECS: WG2100000

12. ECOLOGICAL INFORMATION

Toxicity
no data available
Persistence and degradability
no data available
Bioaccumulative potential
no data available
Mobility in soil
no data available
PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3
Eye Irrit. Eye irritation
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
Skin Irrit. Skin irritation
STOT SE Specific target organ toxicity - single exposure
Xi Irritant
R36/37/38 Irritating to eyes, respiratory system and skin.

Further information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other

warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Leonid Chemicals Pvt. Ltd. be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.

Specification manual - Sorbic Acid

$C_6H_8O_2$ **MW: 122.13**

Product : Sorbic Acid LR
Description : White crystalline powder
Cat No : S062
Cas No : 110-44-1
Prepared Date : 28.01.2008
Approved Date : 28.01.2008

REVISION HISTORY				
Issue/Rev	**Description of Change**		**Author**	**Effective Date**
01/00	*Initial Release*		*S. Paul Joshua*	*28.01.2008*
02/00	*Reviewed no changes*		*S. Paul Joshua*	*01.04.2011*
Next Review Due :	*02.04.2015*			
To be reviewed by :	Head-QC/QA			

Sl. No.	Tests	Specification
		LR
1	Assay (acidimetric)	Min 98.5%
2	Melting point	133 - 136°C
3	UV	λ_{max} = 264 nm
4	Water	0.5 %

Approved By: S.Paul Joshua,Head Quality Control and Quality Assurance