SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 *Product identifiers*

Product name: **L-ASCORBIC ACID**

CAS-No.: **50-81-7**

Product Number: **A66009**

1.2 *Relevant identified uses of the substance or mixture and uses advised against*

Identified uses: Laboratory chemicals, Manufacture of substances

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

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR, UNITED KINGDOM

Telephone: +44 (0)845 1200 506 Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4 *Emergency telephone number*

Emergency Phone #: **+44 (0)845 1200 506**

2. HAZARDS IDENTIFICATION

2.1 *Classification of the substance or mixture*

Not a dangerous substance according to GHS.

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 *Label elements*

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 *Other hazards* – none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 *Substances*

Ascorbic acid *(Synonyms : Antiscorbutic factor; L-Threoascorbic acid; Vitamin C)*

Formula:	$H_2C_6H_6O_6$
Molecular Weight:	**176.12g/mol**
Component Concentration:	-
CAS-No.:	**50-81-7**
EC-No.:	**200-066-2**

4. FIRST AID MEASURES

4.1 *Description of 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.

In case of skin contact:

Wash off with soap and plenty of water.

In case of eye contact:

Flush eyes with water as a precaution.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water.

4.2 *Most important symptoms and effects, both acute and delayed*

Chronic ingestion of large doses may cause gastrointestinal disturbances including nausea and diarrhea, urinary effects involving urine acidification, oxalate and uric crystallizaton in the bladder and kidney, and decreased reaction times and psychomotor coordination.

4.3 *Indication of immediate medical attention and special treatment needed*

no data available

5. FIRE-FIGHTING MEASURES

5.1 *Extinguishing media*

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 *Special hazards arising from the substance or mixture*

Carbon oxides

5.3 *Precautions for fire-fighters*

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 *Further information*

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1 *Personal precautions, protective equipment and emergency procedures*

Avoid dust formation. Avoid breathing vapours, mist or gas.

6.2 *Environmental precautions*

Do not let product enter drains.

6.3 *Methods and materials for containment and cleaning up*

Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 *Reference to other sections*

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 *Precautions for safe handling*

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

7.2 *Conditions for safe storage, including any incompatibilities*

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Light sensitive.

7.3 *Specific end uses*

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 *Control parameters*

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 *Exposure controls*

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance: **Form**: Crystalline **Colour**: no data available

b) Odour: no data available

c) Odour Threshold: no data available

d) pH: 1.0 - 2.5 at 176 g/L at 25 °C

e) Melting/freezing point: Melting point/range: 190 - 194 °C

f) Initial boiling point and boiling range: no data available

g) Flash point: no data available

h) Evaporation rate: no data available

i) Flammability (solid, gas): no data available

j) Upper/lower flammability or explosive limits: no data available

k) Vapour pressure: no data available

l) Vapour density: no data available

m) Relative density: no data available

n) Water solubility: 176 g/L at 20 °C - completely soluble

o) Partition coefficient: n-octanol/water: no data available

p) Autoignition temperature: no data available

q) Decomposition temperature: no data available

r) Viscosity: no data available

s) Explosive properties: no data available

t) Oxidizing properties: no data available

9.2 *Other safety information*

no data available

10. STABILITY AND REACTIVITY

10.1 *Reactivity*

no data available

10.2 *Chemical stability*

no data available

10.3 *Possibility of hazardous reactions*

no data available

10.4 *Conditions to avoid*

Light.

10.5 *Incompatible materials*

Strong oxidizing agents

10.6 *Hazardous decomposition products*

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 *Information on toxicological effects*

Acute toxicity

LD50 Oral - rat - 11,900 mg/kg; Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye: Lacrimation. Behavioural: Somnolence (general depressed activity). Diarrhoea, Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

Genotoxicity in vitro - mouse – Liver; Other mutation test systems

Genotoxicity in vivo - mouse – Intraperitoneal; Micronucleus test

Carcinogenicity

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

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

Chronic ingestion of large doses may cause gastrointestinal disturbances including nausea and diarrhea, urinary effects involving urine acidification, oxalate and uric crystallization in the bladder and kidney, and decreased reaction times and psychomotor coordination.

Additional Information

RTECS: CI7650000

12. ECOLOGICAL INFORMATION

12.1 *Toxicity*

no data available

12.2 *Persistence and degradability*

no data available

12.3 *Bioaccumulative potential*

no data available

12.4 *Mobility in soil*

no data available

12.5 *Results of PBT and vPvB assessment*

no data available

12.6 *Other adverse effects*

no data available

13. DISPOSAL CONSIDERATIONS

13.1 *Waste treatment methods*

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 *UN-Number*

ADR/RID: - IMDG: - IATA: -

14.2 *UN proper shipping name*

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 *Transport hazard class(es)*

ADR/RID: - IMDG: - IATA: -

14.4 *Packaging group*

ADR/RID: - IMDG: - IATA: -

14.5 *Environmental hazards*

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 *Special precautions for users*

no data available

15. REGULATORY INFORMATION

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

15.1 *Safety, health and environmental regulations/legislation specific for the substance or mixture*

no data available

15.2 *Chemical Safety Assessment*

no data available

16. OTHER INFORMATION

no data available