SAFETY DATA SHEET

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

1.1 *Product identifiers*

Product name: **IRON (III) NITRATE NONAHYDRATE**

CAS-No.: **7782-61-8**

Product Number: **A68548**

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*

According to Regulation (EC) No1272/2008; Oxidizing solids (Category 3), 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: Contact with combustible material may cause fire. Irritating to eyes, respiratory system and skin.

2.2 *Label elements*

Pictogram  

Signal word Warning

Hazard statement(s): H272 May intensify fire; oxidiser. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

Precautionary statement(s): P220 Keep/Store away from clothing/ combustible materials. 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): O Oxidising Xi Irritant

R-phrase(s): R 8 Contact with combustible material may cause fire. R36/37/38 Irritating to eyes, respiratory system and skin.

S-phrase(s): S17 Keep away from combustible material. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36 Wear suitable protective clothing.

2.3 ***Other hazards*** – no data available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 ***Substances***

Ferric nitrate nonahydrate (Synonyms : Ferric nitratenonahydrate**)**

Formula:	**$Fe(NO_3)_3{\cdot}9H_2O$**
Molecular Weight:	**404g/mol**
CAS-No.:	**7782-61-8**
EC-No.:	**233-899-5**

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: Rinse thoroughly with plenty of water for at least 15 minutes.

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:*** no data available

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:*** no data available

5.3 ***Precautions for fire-fighters:*** Wear self contained breathing apparatus for fire fighting if necessary.

5.4 ***Further information:*** Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 ***Personal precautions, protective equipment and emergency procedures:*** Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 ***Environmental precautions:*** Do not let product enter drains.

6.3 ***Methods and materials for containment and cleaning up:*** Pick up and arrange disposal without creating dust. 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:*** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. Keep away from combustible material.

7.2 ***Conditions for safe storage, including any incompatibilities:*** Store in cool place. Keep container tightly closed in a dry and well-ventilated place. hygroscopic Store under inert gas.

7.3 ***Specific end uses:*** no data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ***Control parameters***

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Update
Acetic acid	64-19-7	TWA	10ppm 25mg/m^3	1991-07-05

Europe Commission Directive 91/322/EEC on establishing indicative limit values. Remarks Indicative.

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: Safety glasses with side-shields conforming to EN166

Skin 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.

Body Protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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**: Solid **Colour**: no data available

b) Odour: no data available

c) Odour Threshold: no data available

d) pH: no data available

e) Melting/freezing point: 47 °C Melting point/range: no data available

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: 1.68 g/cm^3 at 20 °C

n) Water solubility: 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:* Stable under recommended storage conditions.

10.3 *Possibility of hazardous reactions:* no data available

10.4 *Conditions to avoid:* no data available

10.5 *Incompatible materials:* Organic materials, Powdered metals

10.6 *Hazardous decomposition products:* Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NOx), Iron oxides

11. TOXICOLOGICAL INFORMATION

11.1 *Information on toxicological effects*

Acute toxicity: LD50 Oral - rat - 3,250 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

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: 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: Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., Nausea, Dizziness, Headache, Weakness, Incoordination., Confusion., Cyanosis, Coma

Additional Information: RTECS: NO7175000

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: 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

14.1 ***UN-Number***

ADR/RID:	1466	IMDG:	1466	IATA:	1466

14.2 ***UN proper shipping name***

ADR/RID:	FERRIC NITRATE
IMDG:	FERRIC NITRATE
IATA:	FERRIC NITRATE

14.3 ***Transport hazard class(es)***

ADR/RID:	5.1	IMDG:	5.1	IATA:	5.1

14.4 ***Packaging group***

ADR/RID:	III	IMDG:	III	IATA:	III

14.5 ***Environmental hazards***

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

14.6 ***Special precautions for users:*** EMS-No: F-A, S-Q

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

Eye Irrit. Eye irritation

H272 May intensify fire; oxidiser.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Ox. Sol. Oxidizing solids

Skin Irrit. Skin irritation

STOT SE Specific target organ toxicity - single exposure

O Oxidising

Xi Irritant

R 8 Contact with combustible material may cause fire.

R36/37/38 Irritating to eyes, respiratory system and skin.