SAFETY DATA SHEET

SULFUR

Compilation date: 06/02/2014

Revision No: 1

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: SULFUR

CAS number: 7704-34-9

EINECS number: 231-722-6

Index number: 016-094-00-1

Product code: B8F80260

Synonyms: SULFUR RESUBLIMED

SULFUR FLOWERS

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

1.3. Details of the supplier of the safety data sheet

Company name: Philip Harris Ltd

2 Gregory Street

Hyde

Cheshire

SK14 4HR

United Kingdom

Tel: +44 (0)845 1200 506

Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 845 1200 506

Manufacturer: Eurolab Supplies Limited

Road 5

Winsford Industrial Estate

Winsford

Cheshire

CW1 3AZ

Tel: 01606 594593

Fax: 01606 594603

Email: rachel@eurolabsupplies.co.uk

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Flam. Sol. 2: H228; Skin Irrit. 2: H315

[cont...]

Classification under CHIP: Xi: R38; F: R11

Most important adverse effects: Causes skin irritation. Flammable solid.

2.2. Label elements

Label elements under CLP:

Hazard statements: H315: Causes skin irritation.

H228: Flammable solid.

Signal words: Warning

Hazard pictograms: GHS07: Exclamation mark

GHS02: Flame

Precautionary statements: P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P264: Wash skin thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other hazards

Other hazards: Highly flammable.

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: SULFUR

CAS number: 7704-34-9

EINECS number: 231-722-6

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a Doctor

Eye contact: Bathe the eye with running water for 15 minutes. Protect Uninjured eye. Remove contact lenses, if present and easy to do.

Ingestion: Rinse mouth with water. Give nothing to eat or drink. Do not induce vomiting. Consult a doctor.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artifical respiration. Consult a doctor.

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

Skin contact: May be harmful if absorbed through skin. May cause skin irritation.

Eye contact: There may be irritation and redness.

[cont...]

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Delayed / immediate effects: Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Dermatitis.

4.3. Indication of any immediate medical attention and special treatment needed

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings. CO2, extingushing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In case of fire may be liberated: Sulphur Oxides

5.3. Advice for fire-fighters

Advice for fire-fighters: DO NOT fight fire when fire reaches explosives.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid generation of dust. Do not breathe dust. Provide adequate ventilation. In case of fire & large quantities remove persons to safety.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Spilled product must never be returned to the original container for recycling. Soak up inert absorbent and dispose as waste requiring special attention. Collect in closed and suitable containers for disposal.

6.4. Reference to other sections

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid contact with skin and eyes. Use extractor hood (laboratory). If handled uncovered, arrangements with local exhaust ventilation have to be used. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventillated by technical means. Protect from moisture.

[cont...]

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Storage temperature 15-25°C Keep container tightly closed. Store in cool, well ventilated area.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered use local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Respiratory protection: Respiration protection necessary at aerosol or mist formation. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartiraton 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 & approved under appropriate government standards eg CEN (EU) or NIOSH (US).

Hand protection: For short term hand contact use nitrile rubber gloves, 0.12mm thick and with a break through time of 480 mins. For long term hand contact wear nitrile rubber gloves, 0.38mm thick with a breakthrough time of 480mins.

Eye protection: Safety glasses with side-shields conforming to EN166

Skin protection: Wash hands before breaks and after work. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Powder

Colour: Yellow

Odour: Slight

Evaporation rate: No data available

Oxidising: No data available

[cont...]

Solubility in water: Insoluble at 20°C.

Also soluble in: No data available.

Viscosity: No data available

Viscosity test method: No data available.

Boiling point/range°C: 445°C (1013 hPa)

Melting point/range°C: 113 to 119°C

Flash point°C: 168°C

Autoflammability°C: 235°C(Dust)

Vapour pressure: Max. 0,01hPa (20°)

Relative density: 2.36 g/cm³(20°C)

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: No data available.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: No data available.

10.4. Conditions to avoid

Conditions to avoid: Sources of ignition. Flames. Heat. Sparks

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Amines. Bases.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of sulphur oxides.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	2,000	mg/kg
VAPOURS	RAT	4H LC50	9.23	mg/l
DERMAL	RBT	LD50	2,000	mg/kg

Relevant hazards for substance:

Hazard	Route	Basis

[cont...]

Skin corrosion/irritation	DRM	Based on test data

Symptoms / routes of exposure

Skin contact: May be harmful if absorbed through skin. May cause skin irritation.

Eye contact: There may be irritation and redness.

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Delayed / immediate effects: Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Dermatitis.

Other information: RTECS:WS4250000

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	180	mg/l
FISH	96H LC50	866	mg/l
Daphnia magna	48H EC50	5,000	mg/l

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Disposal of packaging: Dispose of as unused product.

[cont...]

Section 14: Transport information

14.1. UN number

UN number: UN1350

14.2. UN proper shipping name

Shipping name: SULPHUR

14.3. Transport hazard class(es)

Transport class: 4.1

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: No **Marine pollutant:** No

14.6. Special precautions for user

Tunnel code: E

Transport category: 3

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Section 16: Other information

Other information

Phrases used in s.2 and s.3: H228: Flammable solid.

H315: Causes skin irritation.

R11: Highly flammable.

R38: Irritating to skin.

Legend to abbreviations: PNEC = predicted no effect level

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

[cont...]

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

SCU = subcutaneous

SKN = skin

DRM = dermal

OCC = ocular/corneal

PCP = phycico-chemical properties