MATERIAL SAFETY DATA SHEET

# SULPHUR

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

### 1.1. Product identifier

| | |
|---|---|
| Product name: | Sulphur |
| CAS Number: | 7704-34-9 |
| EC Number: | 231-722-6 |

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

| | |
|---|---|
| Product use: | Pyrotechnical Compositions |
| Uses advised against: | Uses other than those recommended |

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

| | |
|---|---|
| **Company name:** | East Harbour Group Ltd<br>Miranda House, The Quay<br>Harwich, Essex, CO12 3HH<br>United Kingdom |
| **Telephone:** | +44 (0) 333 242 0100 |
| **Email:** | info@eastharbourgroup.com |

### 1.4 Emergency telephone number

| | |
|---|---|
| **Emergency telephone:** | +44 (0) 800 246 1274 |

## Section 2: Hazardous identification

### 2.1 Classification of the substance or mixture

In accordance with Regulation (EU) No 1272/2008:
Skin Irrit. 2: Causes skin irritation.

### 2.2 Label elements

Pictogram(s):

| | |
|---|---|
| **Signal Word** | Warning |
| H Statement(s) | |
| H315 | Causes skin irritation |

P Statement(s)

| | |
|---|---|
| P280: | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352: | IF ON SKIN: Wash with plenty of soap and water. |
| P332+P313: | IF SKIN: IRRITATION OCCURS: Get medical advice. |

**2.3 Other hazards.**
In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

## Section 3: Composition/information on ingredients

**3.1 Substances**

| **Dangerous components Reg. (CE) 1272/2008 (CLP)** | **Concentration (%)** | **Hazard statements** |
|---|---|---|
| Sulphur CAS: 7704-34-9 CE (EINECS): 231-722-6 Reg nº: 01-2119487295-27-XXXX | 100 (max.) | H315 |
| **Other components** | **Concentration (%)** | |
| Sílica CAS: 112926-00-8 CE (EINECS): 231-545-4 Reg nº: 01-2119379499-16-0000 | 1,5 (max.) | |

## Section 4: First aid measures

**4.1 Description of first aid measures**
**Inhalation:**
In case of symptoms arising from inhalation of sulphur dust: Remove casualty to a quiet and well-ventilated place if safe to do so.
If casualty is unconscious and:
Not breathing – ensure that there is no obstruction to breathing and give artificial respiration by trained personnel.
If necessary, give external cardiac massage and obtain medical assistance. Breathing place in the recovery position.
Administer oxygen if necessary.
Obtain medical assistance if breathing remains difficult. If there is any suspicion of inhalation of SO2 or H2S: Rescuers must wear breathing apparatus, belt, and safety rope, and follow rescue procedures. Remove casualty to fresh air as quickly as possible.
Immediately begin artificial respiration if breathing has ceased. Provision of oxygen may help.
Obtain medical advice for further treatment.
**Ingestion/Aspiration:**
Do not induce vomiting. Ask for medical assistance.
**Contact skin:**
Remove contaminated clothing and footwear and dispose of safely. Wash affected area with soap and water. Seek medical attention if skin irritation, swelling or redness occurs. For minor thermal burns: Cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. However, body hypothermia must be avoided. Do not put ice on the burn; Remove non-sticking garments carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them. Seek medical attention in all cases of serious burns.

**Contact eyes**:
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If dust particles remain in the eye, do not rub the eye as mechanical abrasion due to the dust may damage the cornea If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist If hot product is splashed into the eye, it should be cooled immediately to dissipate heat, under cold running water. Immediately obtain specialist medical assessment and treatment for the casualty.

**4.2 Most important symptoms and effects, both acute and delayed**
**Inhalation:** irritation of the upper respiratory tract
**Ingestion/Aspiration:** light laxative effect
**Contact skin:** (product at ambient temperature): irritation. May cause burn in case of contact watt product at high temperatures
**Contact eyes:** (product at ambient temperature): irritation. May cause burn in case of contact with product at high temperature

**4.3 Indication of any immediate medical attention and special treatment needed**
Seek medical care

## Section 5: Fire-fighting measures

**5.1 Fire Fighting Media and Instructions**:
**Suitable extinguishing media:** Foam. Water fig. Dry chemical powder. Carbon dioxide. Other inert gases (subject to regulations). Sand or Earth
**Unsuitable extinguishing media:** Do not use a direct water jet on the burning product; they could cause a steam explosion and spread of the fire. Simultaneous use of foam and water on the same Surface is to be avoided as water destroys the foam.

**5.2 Special hazards arising from the substance or mixture**
**Combustion products:** Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. **Special measures:** Avoid putting out fires with strong and direct jets of water as this can disperse the sulphur and worsen the situation.
**Special hazards:** Irritant vapours may arise when sulphur is melted. These vapours may burn in the presence of flames, sparks or intense heat and cause the inflammation of melted sulphur.

**5.3 Advice for firefighters**
In case of a large fire or in confined or poorly ventilated spaces wear full fire-resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6: Accidental release measures

**6.1 Personal precautions, protective equipment, and emergency procedures**
Avoid direct contact with released material. Stay upwind.
In case of large spillages, alert occupants in downwind areas.
Keep non-involved personnel away from the area of spillage. Alert emergency personnel.
Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.
Eliminate sources of ignition, if safe to do so (e.g., electricity, flares, fires, sparks).
Prevent generation and spreading of dust.

When the presence of dangerous amounts of SO2 or H2S around the spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special protection equipment, procedures, and personnel training. If required, notify relevant authorities according to applicable regulations.
**Personal protection:**
**Small spillages:** normal antistatic working clothes are usually adequate.
**Large spillages:** full body suit of chemically resistant and antistatic material. Work gloves providing adequate chemical resistance.
**Note:** gloves made of PVA are not water-resistant and are not suitable for emergency use. Work helmet. Antistatic non-skid safety shoes or boots. Closed goggles.
Face shield, if contact of hot product or vapours with eyes is possible or anticipated.
If contact with molten product is possible or anticipated, all PPE items should be heat-resistant and thermally insulated.
**Respiratory protection:** a half mask with dust filter, a full-face respirator with filter(s) for organic vapours/ SO2/H2S, or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

### 6.2 Environmental precautions
Avoid scattering of the material with mechanical containment. Avoid entrance of the material in drains or sewers.

### 6.3. Methods and material for containment and cleaning up
**Land spillage**
Leaks and spillages may consist of molten hot material, with risk of severe burns. Prevent product from entering sewers, rivers, or other bodies of water.
**Note:** solidified product may clog drains and sewers. If necessary, dike the molten product with earth, sand or similar non-combustible materials. Let molten material cool naturally. If necessary, cautiously use water fog to help the cooling. Do not play direct jets of foam or water on the spilled molten product, as this may cause splattering When inside buildings or confined spaces ensure adequate ventilation Collect free product with suitable mechanical means. Transfer collected product and other contaminated materials to suitable containers for recycle, recovery or safe disposal.
**Spillages in water or at sea:**
In case of spillages in the water, the product will cool down rapidly and become solid. The product in solid form is heavier than water, and normally no intervention will be possible. Fine dust may momentarily float. If possible, control the spreading of the spillage, and collect the solid product by skimming or other suitable mechanical means. Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities. Collect recovered product and other materials in suitable tanks or containers for recovery or safe disposal.

### 6.4 Reference to other sections.
Section 8 contains more detailed advice on personal protective equipment and section 13 on waste disposal.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling
**General precautions:**
Risk of explosive mixtures of dusts and air. Ensure that all relevant regulations regarding explosive atmospheres, and handling and storage facilities of flammable products, are followed. Keep away from sparks/open flames/hot surfaces. No smoking. A specific assessment of inhalation risks from the presence of Sulphur dioxide (SO2) and/or hydrogen sulphide (H2S) in tank headspaces, confined spaces, product residue,

tank waste and waste water, and unintentional releases must be made to help determine controls appropriate to local circumstances. Use only outdoors or in a well-ventilated area. Avoid contact with the product, namely when in the molten form. Avoid release to the environment.
**Specific conditions:**
Take precautionary measures against static electricity. Ground/bond container and receiving equipment Avoid splash filling of bulk volumes when handling hot liquid product Transfer equipment must be designed in a manner that minimizes the airborne dust. Avoid contact with skin and eyes. Do not breathe dusts/vapours of hot product. Use personal protective equipment as required. For more information regarding protective equipment and operational conditions see exposure scenarios.

**7.2 Conditions for safe storage, including any incompatibilities**
**Temperature and decomposition products:** N/A
**Dangerous reactions:** Sulphur can cause explosions in contact with oxidizing materials.

**Storage conditions:**
Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national, or local legislation.
Concentrations of SO2 and/or H2S in silos, pits or tanks can reach hazardous values in case of prolonged storage, particularly where the sulphur is molten or recently solidified from the molten state.
Cleaning, inspection, and maintenance of internal structure of storage equipment's must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
Before entering storage tanks and commencing any operation in a confined area, check the atmosphere for oxygen content, SO2,H2S and flammability.
Store separately from oxidising agents.
**Recommended materials:**
**Liquid sulphur:**
carbon steel and concrete.
**Solid sulphur**:
carbon steel.
Acid-resistant internal coating is recommended for containments and storage spaces.
Hulls of sea carriers for the transport of solid sulphur should be either coated or lime washed. Compatibility should be checked with the manufacturer.
**Container Advice**
If the product is supplied in containers: Keep only in the original container, or in a suitable container for this kind of product. Keep containers tightly closed and properly labelled. Empty containers may contain combustible product residues.
Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.
Harmful concentrations of SO2 and/or H2S may also arise especially in case of prolonged storage of heated product.
**Incompatible materials:**
Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use.
Compatibility should be checked with the manufacturer.

**7.3 Specific end use(s).**
Pyrotechnical mixtures

## Section 8: Exposure controls/personal protection

**8.1 Control parameters**
Sulphur combustion may produce sulphur dioxide and hydrogen sulphide (toxic gases). Sulphur dioxide:

TLV/TWA (ACGIH), VLA/ED (INSHT): 2 ppm
TLV/STEL (ACGIH), VLA/EC (INSHT): 5 ppm
Sulfuro de hidrógeno TLV/STEL
(ACGIH): 5 ppm TLV/TWA
(ACGIH): 1 ppm. VLA/EC (INSHT): 10 ppm
(14 mg/m3) VLA/ED (INSHT): 5 ppm (7 mg/m3)
UK: OEL-TWA (COSHH): 5 ppm (7mg/m3)
OEL-STEL: 10ppm (14mg/m3)

DNEL DN(M)ELs for workers
Acute exposure - systemic effects, Dermal (mg/kg bw /day): No hazard identified for this route
Acute exposure- systemic effects, Inhalation (mg/m³): No hazard identified for this route
Acute exposure - local effects, Dermal (mg/kg bw /day): No threshold effect and/or no dose-response information available
Acute exposure - local effects, Inhalation (mg/m³): No hazard identified for this Route
Long-term exposure - systemic effects, Dermal (mg/kg bw /day): No hazard identified for this route
Long-term exposure - systemic effects, Inhalation (mg/m³): No hazard identified for this route
Long-term exposure - local effects, Dermal (mg/kg bw /day): No hazard identified for this route
Long-term exposure - local effects, Inhalation (mg/m³): No hazard identified for this route

DN(M)ELs for the general population
Acute exposure - systemic effects, Dermal (mg/kg bw /day): No hazard identified for this route
Acute exposure - systemic effects, Inhalation (mg/m³): No hazard identified for this route
Acute exposure - local effects, Dermal (mg/kg bw /day): No threshold effect and/or no dose-response information available
Acute exposure - local effects, Inhalation (mg/m³): No hazard identified for this route
Long-term exposure - systemic effects, Dermal (µg /kg bw /day): No hazard identified for this route
Long-term exposure - systemic effects, Inhalation (µg /m³): No hazard identified for this route
Long-term exposure - systemic effects, Oral (µg/kg bw /day): No hazard identified for this route
Long-term exposure – local effects, Dermal (mg/kg bw /day): No hazard identified for this route
Long-term exposure - local effects, Inhalation (mg/m³): No hazard identified for this route

PNEC PNEC Water
PNECs are not calculated as the substance is highly insoluble in water (water solubility < 5µg/l)
PNEC sediments, soil
Due to the absence of toxicity a PNEC has not been determined PNEC Sewage treatment plant
PNECs are not calculated as the substance is highly insoluble in water (water solubility < 5µg/l)
PNEC oral (secondary poisoning)
PNEC oral (mg/kg food): 0,22 (assessment factor: 90)

**8.2 Exposure controls /**

**Appropriate engineering controls**

Measures of a technical nature: Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

**Concentration:** 100 %
**Uses:** Pyrotechnical compositions
**Breathing protection:** Mask for dust products
**Skin protection:** Protective gloves are recommended.
**Eye protection**: Safety goggles are recommended.
**Other protections**: Work area showers. Do not wear contact lenses.

**Specific hygiene measures**: Do not eat or store food in areas where the material is handled. Wash thoroughly with water and soap after handling the product. Appropriate protection measures should be installed in areas where inhalation of the product might occur.
**Specific hygiene measures aggravated by exposure**: People with respiratory problems, skin and allergies are more sensitive to exposure to this product.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| Appearance: | Solid powder |
| Colour: | yellow |
| Odour: | Odourless |
| Odour threshold: | N.A./N.A. |
| pH: | N.A./N.A. |
| Melting point: | 130ºC |
| Boiling Point: | 444,ºC |
| Flash point: | 207 ºC |
| Evaporation rate: | N.A./N.A. |
| Inflammability (solid, gas): | N.A./N.A. |
| Lower Explosive Limit: | 0,35 g/m3(powder S) |
| Upper Explosive Limit: | 1400 g/m3(powder S) |
| Maximum explosion pressure rate (bar): | 5 bar g. |
| Maximum pressure increase rate (Kst) (bar m/s): | 52 bar.m/s |
| Pressure increase speed (bar/s): | 192 bar/s |
| Vapour pressure: | N.A./N.A. |
| Vapour density: | N.A./N.A. |
| Relative density: | 2,07 g/cm3 |
| Solubility: | Soluble in toluene (0.2% max.) and carbon disulphide., 2% Max insoluble in toluene). |
| Liposolubility: | N.A./N.A. |
| Hydrosolubility: | N.A./N.A. |
| Partition coefficient (n-octanol/water): | N.A./N.A. |
| Auto-ignition temperature: | 240ºC |
| Auto-ignition in powder: | not exist (melts at 13ºC) |
| Decomposition temperature: | N.A./N.A. |
| Viscosity: | N.A./N.A. |
| Explosive properties: | N.A./N.A. |
| Oxidizing properties: | N.A./N.A. |

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

**9.2 Other information**.
Content as DMSO extract < 3% (IP 346)
Hydrosolubility: Insoluble
Total sulphur, % p: 97.5 min (PT-10-212). Ashes, % p: 0.30 max. (ASTM D-4574). Acidity, % p: 0.05 max. (ASTM D-4569).
Loss at 100-105 °C, % p: 0.3 max. (RR-728). Oil, % p:
1.5 typical (RR-683).

# SULPHUR

## Section 10: Stability and Reactivity

| | |
|---|---|
| **10.1 Reactivity** | The product does not present hazards by their reactivity. |
| **10.2 Chemical Stability** | Stable product at room temperature |
| **10.3 Possibility of hazardous reactions** | Oxidizing materials, strong bases, amines |
| **10.4 Conditions to avoid** | Sparks and flames. |
| **10.5 Incompatible materials** | Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer. |
| **10.6 Hazardous decomposition products** | SH2, SO2 |

## Section 11: Toxicological Information

**11.1 Toxicological effects:**
**a) acute toxicity:** Samples of sulphur have been tested in acute oral, dermal and inhalation studies. Results indicate the following: ORAL: LD50 = 2000 mg/kg bw.
INHALATION: LC50 = 5430 mg/kg bw DERMAL: LD50 = 2000 mg/kg bw
**b) skin corrosion/irritation:** Product classified: Skin irritant, Category 2: Causes skin irritation.
**c) serious eye damage/irritation:** Not irritating to eye
**d) respiratory or skin sensitisation:** Not sensitising
**e) germ cell mutagenicity:** Sulphur is not mutagenic (the structure of sulphur raises no chemical alert for mutagenicity).
**f) carcinogenicity:** In accordance with section 1 of REACH Annex XI, a carcinogenicity study does not need to be conducted. The expectation that no carcinogenic effects will occur as a consequence of sulphur exposure is supported by the long-standing use of sulphur in topically applied, pharmaceutical formulations and as a pesticide and the absence of carcinogenic effects.
**g) reproductive toxicity**: In accordance with section 1 of REACH Annex XI, the performance of a two-generation study is scientifically not justified. The expectation that no effects on fertility will occur as a consequence of sulphur exposure is supported by the long-standing use of sulphur in topically applied, pharmaceutical formulations and as a pesticide and the absence of fertility effects.
**h) STOT-single exposure:** Acute exposure studies show no evidence of systemic toxicity.
**i) STOT-repeated exposure:** A repeat dose toxicity of sulphur has been in rats following dermal and oral exposure for periods between 28 days and 21 weeks. No systemic toxicity was observed; the only effect observed was local skin effects.
**j) aspiration hazard:** No aspiration hazard expected.

## Section 12: Ecological Information

**12.1 Toxicity.**
Dangerous and toxic for the aquatic environment if it produces SH2. Sulphur may produce phytotoxicity, soil, water and atmosphere contamination or animal toxicity in high concentrations. Acute toxicity studies in fish, Daphnia and algae show LC50/EC50 values >5 µg/l (maximum water solubility).

**12.2 Persistence and degradability.**
Released to the environment sulphur is easily oxidized, due to microorganisms or spontaneously in presence of oxygen, being transformed into sulphur organic compounds. Soil and water microorganisms, able to degrade sulphur through oxidative-reductant reactions, allow the assimilation of these organic compounds by upper


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organisms such as plants and animals, being this way introduced into the traffic food-chain. Biodegradation tests are not applicable for sulphur as this substance is inorganic.

**12.3 Bioaccumulative potential.**
Elemental sulphur is insoluble in water. Bioaccumulation tests are not applicable for sulphur as this substance is inorganic.

**12.4 Mobility in soil.**
Sulphur has a mobility and biological life-cycle characteristic of essential nutrients for organism's cellular life.

**12.5 Results of PBT and vPvB assessment.**
This mixture contains no substance considered to be PBT or vPvB. Anthracene is not present in this substance at greater than 0.1%. No other representative hydrocarbon structures were found to meet the PBT/vPvB criteria.

**12.6 Other adverse effects.**
No information is available about other adverse effects for the environment.

## Section 13: Disposal considerations

**13.1 Waste treatment methods.**
**Disposal:** Recommended disposal method: landfills. It is not recommended to incinerate sulphur residues because during combustion SO2 (toxic to humans and environment) is developed. Disposal in small quantities to controlled areas is recommended. Methods to be avoided: Incineration National legal requirements must be consulted. If possible, recover and reuse product.
**Handling:** Avoid direct contact when handling residues.
**Provisions:** Establishments and companies which recover, dispose, store, transport, or handle waste should comply with Dir. 2008/98/EC on waste, or other local, national or community provisions.

## Section 14: Transport Information

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.
**Land:** Transport by road: ADR, Transport by rail: RID. Transport documentation: Consignment note and written instructions
**Sea:** Transport by ship: IMDG. Transport documentation: Bill of lading
**Air:** Transport by plane: ICAO/IATA. Transport document: Airway bill.

**14.1 UN number**.
UN No: UN1350

**14.2 UN proper shipping name.**
Description:
ADR: UN 1350, SULPHUR, 4.1, PG III, (E)
IMDG: UN 1350, SULPHUR, 4.1, PG III
ICAO/IATA: UN 1350, SULPHUR, 4.1, PG III

**14.3 Transport hazard class(es).**
Class(es): 4.1

**14.4 Packing group.**
Packing group: III

**14.5 Environmental hazards**.
Marine pollutant: No

**14.6 Special precautions for user.**
F-A,S-G Labels: 4.1

Hazard number: 40
ADR LQ: 5 kg
IMDG LQ: 5 kg
ICAO LQ: 10 kg
Provisions concerning carriage in bulk ADR:
VC1 Carriage in bulk in sheeted vehicles, sheeted containers or sheeted bulk containers is permitted.
VC2 Carriage in bulk in closed vehicles, closed containers or closed bulk containers is permitted.
Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills):
Proceed in accordance with point 6.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**.
The product is not transported in bulk.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## Section 15: Regulatory Information

**15.1 Safety, health, and environmental regulations/legislation specific for the substance.**
COMMISSION REGULATION (EU) No 453/2010: REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).
Regulation (EC) No 1907/2006 concerning Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
Dir.67/548/EEC on classification, packaging and labelling of dangerous substances (including amendments and adaptations in force).
Dir.1999/45/EEC on classification, packaging and labelling of dangerous substances (including amendments and adaptations in force).
Dir.91/689/EEC on hazardous waste/Dir.2008/98/CE waste management.

Royal Decree 363/95: Regulation about notification of new substances and classification, packaging and labelling of dangerous substances.
Royal Decree 255/2003: Regulation about classification, packaging and labelling of dangerous preparations.
European Agreement concerning the international carriage of dangerous goods by road (ADR).

Regulation on the international transport of dangerous goods on the railway. (RID) International maritime code of dangerous goods. (IMDG)
International Air Transport Association (IATA) regulation pertaining to air shipment. International Bulk Chemical Code (IBC Code), MARPOL 73/78.

**15.2 Chemical safety assessment.**
A chemical safety assessment has been carried out.

## Section 16: Other Information

**Classification codes:**
Skin Irrit. 2: Skin irritant, Category 2

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

| | |
|---|---|
| ADR: | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| CEN: | European Committee for Standardization. |
| PPE: | Personal protection equipment. |
| IATA: | International Air Transport Association. |
| ICAO: | International Civil Aviation Organization. |
| IMDG: | International Maritime Code for Dangerous Goods. |
| RID: | Regulations Concerning the International Transport of Dangerous Goods by Rail. |

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/
Regulation (EU) 2015/830.
Regulation (EC) No 1907/2006.
Regulation (EU) No 1272/2008.
The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.