


Safety Data Sheet

DS 60

| Section 1 - IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY | |
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| 1.1 Product identifier : | |
| • Product name : | DS 60 |
| • Substance Name | Sulfur, homopolymer Sulfur |
| • CAS# | Sulfur, homopolymer : 9035-99-8 Sulfur: 7704-34-9 |
| • REACH Registration number | Sulfur: 01-2119487295-27-0112 |
| 1.2 Relevant identified uses of the substances or mixture and used advised against : | |
| • Recommended use : | Vulcanizing agent |
| • Recommended restrictions : | None known |
| 1.3 Details of supplier of the safety data sheet : | |
| • Manufacturer details : | Oriental Carbon & Chemicals Limited SEZ Division : survey No 141, Paiki of Mouje Village Taluka Mundra, Mundra SEZ, District Kutch, Gujarat- 370421 India Telephone: +91-8980033912 / 13, +91-8980033926 / 63 Oriental Carbon & Chemicals Limited Plot No. 3 & 4, Industrial Estate,Phase-1 Dharuhera, Rewari Haryana, 123106, India Telephone: 91-1274-242109, 242250-51 |
| • Only Representative details : | REACHLaw Ltd. Vänrikinkuja 3 JK 21 FI-02600 Espoo Finland Tel: +358 (0) 9412 3055 Fax: +358-(0)9-412 3049 www.reachlaw.fi E-mail: duconfirmation@reachlaw.fi and registrations2@reachlaw.fi |
| 1.4 Emergency Telephone : | |
| • Emergency telephone & contact : | Mr. Sudeep Dasgupta Emergency telephone no: 0091/1274-242109, 242110 Email : sudeep@occlindia.com |
| Section 2 - HAZARDS IDENTIFICATION | |
| 2.1 Classification of substance or mixture according to Regulation (EC) No 1272/2008 (CLP) : | |
| Hazard categories and codes : | Skin Irritating category 2 |
| 2.2 Labeling according to Regulation (EC) No 1272/2008 (CLP) : | |
| Hazard Pictogram : | Signal word: Warning  |

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| | GHS07 Exclamation mark | | | | |
| Hazard Statements : | H315: Causes skin irritation. | | | | |
| Precautionary Statements : | P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection P362: Take off contaminated clothing and wash before reuse. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation occurs: Get medical advice / attention. | | | | |
| 2.3 Other hazards : | Not known. | | | | |
| Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS | | | | | |
| | | | | | |
| Constituent | CAS No. | EC No. | Concentration range | Classification according to Regulation (EC) No 1272/2008 (CLP) | Remarks |
| Sulfur, homopolymer | 9035-99-8 | - | 60 % | - | None |
| Sulphur | 7704-34-9 | 231-722-6 | 40 % | Skin Irrit. 2; H315. | |
| Section 4 - FIRST AID MEASURES | | | | | |
| 4.1 Description of First Aid measures : | | | | | |
| <ul style="list-style-type: none">• General measures : | In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. | | | | |
| <ul style="list-style-type: none">• Eye contact: | Dust contact with eye may cause irritation; wash with plenty of water and go in open air, in case of severity take medical advice. | | | | |
| <ul style="list-style-type: none">• Skin Contact: | Prolong contact with skin result in irritation. Wash immediately with plenty of water. | | | | |
| <ul style="list-style-type: none">• Inhalation : | Inhalation of dust may cause uneasiness and breathing discomfort. Take the victim in to open atmosphere, In case of severity consult doctor. | | | | |
| <ul style="list-style-type: none">• Ingestion: | Consult a physician if expose to this substance and symptoms of irritation persist even after first aid measure. | | | | |
| 4.2 Most important symptoms and effects, both acute and delayed : | | | | | |
| <ul style="list-style-type: none">• In case of fire SO₂ gas is release which may cause severe irritation to throat, eyes and skin. Immediately move the victim to the safe and open area, keep the body warm. In case of unconsciousness provide artificial respiration. Take medical help. It is strongly recommended to use appropriate Personal Protective Equipments (PPEs) while handling. | | | | | |
| 4.3 Indication of any immediate medical attention and special treatment needed : | | | | | |
| <ul style="list-style-type: none">• Advice to physician : Symptomatic treatment is advised. | | | | | |
| Section 5 - FIRE-FIGHTING MEASURES | | | | | |
| 5.1 Extinguishing media : | | | | | |
| <ul style="list-style-type: none">• Suitable extinguishing media : Use media that is appropriate for surrounding fire like CO₂ fire extinguishers, water spray, fog, dry chemical and regular foam.• Unsuitable extinguishing media : Avoid full water jet | | | | | |

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| 5.2 Special hazards arising from the substance or mixture : | |
| <ul style="list-style-type: none"> • Powdered material may form explosive dust -air mixtures. • During a fire, irritating and highly toxic and corrosive gases like SO₂ may be generated by thermal decomposition. | |
| 5.3 Advice for fire-fighters : | |
| <ul style="list-style-type: none"> • Use fire-fighting procedure that is appropriate to treat surrounding fire, all fire fighters should use self-contained breathing apparatus. In case of face mask it is recommended that face mask with SO₂ cartridge to be used. | |
| Section 6 - ACCIDENTAL RELEASE MEASURES | |
| 6.1 Personal precautions, protective equipment and emergency procedures : | |
| <ul style="list-style-type: none"> • Advice for non-emergency personnel: | Avoid contact with eyes and skin by use of protective equipment. Do not eat, drink, and smoke at working place. Always wash hands after handling. Wash contaminated clothing before re-using. Take care of proper disposal product. |
| <ul style="list-style-type: none"> • Advice for emergency responders: | Wear personal protective equipment (as mention in section 8.2.2). Ventilate the area. Evacuate personnel to safe areas. No action shall be taken involving any personal risk or without suitable training. Keep unauthorized personnel away. Prevent dust cloud. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Using non-sparking tools transfer spilled materials to a leak proof container. |
| 6.2 Environmental precautions : | |
| <ul style="list-style-type: none"> • Prevent leakage or spillage if safe to do so. • Do not let product enter drains. • Discharge into the environment must be avoided. • Keep material in proper packing and ventilated storage. | |
| 6.3 Methods and material for containment and cleaning : | |
| <ul style="list-style-type: none"> • Small Spill: Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). • Large Spill: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate Personal Protective Equipment (PPE). See section 8. In case of contact with water, prevent runoff from entering into storm Sewers and ditches which lead to natural waterways. Neutralize contaminated area and flush with large quantities of water. Comply with Applicable environmental regulations. Avoid any source of ignition and heat. In case of fire follow the measures. | |
| Section 7 - HANDLING AND STORAGE | |
| 7.1 Precautions for safe handling : | |
| <ul style="list-style-type: none"> • Advice on safe handling : | Provide adequate ventilation in the area and prevent dust formation. Wear suitable protective clothing while using. |
| <ul style="list-style-type: none"> • Advice on hygiene : | Keep container closed. Promptly clean up spills. |

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| | Do not ingest. Do not breathe dust. |
| <ul style="list-style-type: none"> Advice on protection against fire and explosion : | Keep away from sources of ignition. Refrain from smoking. Avoid static charge by friction or strike. Have proper earthing of the equipments which are used for handling this material |
| 7.2 Conditions for safe storage : | |
| <ul style="list-style-type: none"> Store the material in cool and dry place, have proper ventilation in the storage area. Avoid exposure to sunlight. Store the material away from acid, bases, oxidizing agents and amines. Keep away the material from source of ignition and heat. Keep away from food. Drink and animal feeding stuffs. | |
| 7.3 Specific end use(s) : | |
| As mention in section 1.2. | |
| Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION | |
| 8.1 Control parameters: | |
| <ul style="list-style-type: none"> Exposure limits values: | DUST List of approved workplace exposure limits (WELs) / EH40 total respirable dust: TWA 10 mg/m ³ List of approved workplace exposure limits (WELs) / EH40 respirable dust: TWA 4 mg/m ³ Distillates (Petroleum) Hydro treated Heavy Naphthenic- OES*-TWA** 4.0mg/m ³ respirable dust Sulphur Homopolymer-OES*-TWA** None |
| 8.2 Exposure control : | |
| 8.2.1 Appropriate engineering controls : | |
| <ul style="list-style-type: none"> Engineering measures : | Handle in accordance with good industrial hygiene and safety practice. Use local exhaust ventilation if concentrations in air could exceed occupational exposure standard. |
| 8.2.2 Individual protection measures : | |
| <ul style="list-style-type: none"> Respiratory Protection : | Use respiratory protection in case of insufficient exhaust ventilation or prolonged exposure. |
| <ul style="list-style-type: none"> Hand Protection : | Use suitable protective gloves as per the working condition details offered by various manufacturers. |
| <ul style="list-style-type: none"> Eye protection : | Wear tightly fitting safety goggles. |
| <ul style="list-style-type: none"> Skin protection : | Wear impervious clothing to prevent repeated or prolonged skin contact. |
| <ul style="list-style-type: none"> Hygiene measures : | Avoid contact with the skin and the eyes. When using, do not eat, drink or smoke. Wash hands before breaks and at the end of work day. |
| 8.2.3 Environmental exposure controls : | |
| <ul style="list-style-type: none"> Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. | |

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Section 9 – PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties :

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| • Appearance : | Yellow Powder. |
| • Odour: | Characteristic Odour |
| • Odour threshold: | N/A |
| • pH: | Almost Neutral |
| • Melting point/Freezing point: | 90 -119°C |
| • Initial boiling point& boiling range: | Not applicable as it is solid. |
| • Flash point: | More than 156°C |
| • Evaporation rate: | Not at normal temperature |
| • Flammability: | Not available |
| • Upper/lower flammability or explosive limits: | Not available |
| • Vapour pressure: | < 0.01 hPa (20°C) |
| • Vapour density: | Not available |
| • Relative density: | 1.4 – 1.8 |
| • Solubility(ies): | Partly insoluble in carbon di-sulphide |
| • Partition coefficient: n-octanol/water: | Not available |
| • Auto-ignition temperature: | 232°C sulfur |
| • Decomposition temperature: | Not available |
| • Viscosity: | Not applicable |
| • Explosive properties: | None |
| • Oxidizing properties: | None |

9.2 Other information : None

Section 10 - STABILITY AND REACTIVITY

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| • Reactivity : | No data available. |
| • Chemical stability : | Under normal conditions the product is stable. |
| • Possibility of hazardous reactions : | When handled and stored appropriately no dangerous reactions are known. |
| • Conditions to avoid : | Avoid heat, flames, sparks and other sources of ignition. Avoid generating dust. |
| • Hazardous decomposition products : | Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract. In case of fire, toxic and corrosive gases may be formed. Sulfur dioxide gas may be liberated from the product. |
| • Incompatible materials : | Strong oxidizing agents. Amines. Strong bases. |

Section 11 - TOXICOLOGICAL INFORMATION

- No data available.

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| 11.2 Irritation /corrosion : | |
| <ul style="list-style-type: none"> Eye: Dust contact with the eyes can lead to mechanical irritation . Skin: Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. | |
| 11.3 Sensitization : | |
| <ul style="list-style-type: none"> Eye: Not expected to be sensitizing. Skin: Not expected to be sensitizing. | |
| 11.4 CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) : | |
| <ul style="list-style-type: none"> Carcinogenicity: | Not classified as carcinogen. |
| <ul style="list-style-type: none"> Mutagenic effects : | Not classified as a mutagen. |
| <ul style="list-style-type: none"> Reprotoxic effects: | Not found to be reprotoxic. |
| 11.5 Other toxic effects on humans : | |
| <ul style="list-style-type: none"> Inhalation: | No data available. |
| <ul style="list-style-type: none"> Eyes: | Dust contact with the eyes can lead to mechanical irritation. |
| <ul style="list-style-type: none"> Ingestion: | May cause irritation of the gastrointestinal tract. |
| <ul style="list-style-type: none"> Chronic toxicity: | No data available. |
| 11.6 Specific target organ toxicity : | |
| <ul style="list-style-type: none"> Single exposure: | No experimental or epidemiological sufficient evidence for specific target organ toxicity. |
| <ul style="list-style-type: none"> Repeated exposure: | No experimental or epidemiological sufficient evidence for specific target organ toxicity. |
| 11.7 Aspiration hazard: No data available. | |
| Section 12 - ECOLOGICAL INFORMATION | |
| 12.1 Ecotoxicity : | |
| <ul style="list-style-type: none"> No data available for final product | |
| 12.2 Persistence and degradability : | |
| <ul style="list-style-type: none"> Information not available for final product. | |
| 12.3 Bioaccumulative potential : | |
| <ul style="list-style-type: none"> Information not available for final product. | |
| 12.4 Mobility in soil : | |
| <ul style="list-style-type: none"> Information not available for final product. | |
| 12.5 Results of PBT and vPvB assessment : | |




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| <ul style="list-style-type: none"> Information not available for final product. | |
| 12.6 Other adverse effects : | |
| <ul style="list-style-type: none"> None known. | |
| Section 13 - DISPOSAL CONSIDERATIONS | |
| <ul style="list-style-type: none"> Disposal of product : | Small amounts can be burned after pouring on dry sand. Larger quantities can be atomized into an approved type combustion chamber. Dispose of in accordance with all local regulations. |
| <ul style="list-style-type: none"> Disposal of packaging : | Disposal must be made according to official regulations. Packaging may be reused or recycled after cleaning. |
| Section 14 - TRANSPORT INFORMATION | |
| Land transport (ADR/RID) | |
| <ul style="list-style-type: none"> UN Number: | 3261 |
| <ul style="list-style-type: none"> UN proper shipping name: | Corrosive solid, acidic, organic, n.o.s. |
| <ul style="list-style-type: none"> Class : | 8 |
| <ul style="list-style-type: none"> Packing group : | III |
| Marine transport (IMDG) | |
| <ul style="list-style-type: none"> UN Number: | 3261 |
| <ul style="list-style-type: none"> UN proper shipping name: | Corrosive solid, acidic, organic, n.o.s. |
| <ul style="list-style-type: none"> Class : | 8 |
| <ul style="list-style-type: none"> Packing group : | III |
| <ul style="list-style-type: none"> IMDG - EmS number | F-A, S-B |
| <ul style="list-style-type: none"> Marine pollutant : | no |
| Air transport ICAO/IATA | |
| <ul style="list-style-type: none"> UN Number: | 3261 |
| <ul style="list-style-type: none"> UN proper shipping name: | Corrosive solid, acidic, organic, n.o.s. |
| <ul style="list-style-type: none"> Class : | 8 |
| <ul style="list-style-type: none"> Packing group : | III |
| Section 15 - REGULATORY INFORMATION | |
| 15.1 Other Regulatory information : | |
| <ul style="list-style-type: none"> This safety datasheet complies with the requirements of Regulation (EU) No. 453/2010. Safety, health and environmental regulations/legislation specific for the substance or mixture : No data available. Inventory Status : Components of mixture listed in: US (TSCA), Europe (EINECS), New Zealand (NZIoC), Philippines (PICCS), Canada (DSL), China (IECSC), Australia (AICS). | |

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| <ul style="list-style-type: none"> • HMS (Hazardous Materials Identification System) classification: | <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr><td style="background-color: #0000FF; color: white; padding: 2px;">Health</td><td style="text-align: right; padding: 2px;">1</td></tr> <tr><td style="background-color: #FF0000; color: white; padding: 2px;">Fire</td><td style="text-align: right; padding: 2px;">1</td></tr> <tr><td style="background-color: #FFD700; padding: 2px;">Physical Hazard</td><td style="text-align: right; padding: 2px;">0</td></tr> <tr><td style="padding: 2px;">Personal Protection</td><td style="text-align: right; padding: 2px;">C</td></tr> </table> <div style="background-color: #000080; color: white; padding: 2px; margin-bottom: 5px;">1 = Irritation or minor reversible injury possible..</div> <div style="background-color: #FF0000; color: white; padding: 2px; margin-bottom: 5px;">1 = Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 °F. (Class IIIB)..</div> <div style="background-color: #FFD700; padding: 2px;">0 = Materials that are normally stable, under fire conditions and will not react to water, polymerize, decompose, condense or self-react.</div> <div style="text-align: center; margin-top: 10px;">    <p>C = Safety Glasses + Gloves + Protective Apron</p> </div> | Health | 1 | Fire | 1 | Physical Hazard | 0 | Personal Protection | C |
| Health | 1 | | | | | | | | |
| Fire | 1 | | | | | | | | |
| Physical Hazard | 0 | | | | | | | | |
| Personal Protection | C | | | | | | | | |
| <ul style="list-style-type: none"> • NFPA (National Fire Protection Association) classification: | <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <tr><td style="background-color: #000080; color: white; padding: 2px;">Health</td><td style="text-align: right; padding: 2px;">1</td></tr> <tr><td style="background-color: #FF0000; color: white; padding: 2px;">Fire</td><td style="text-align: right; padding: 2px;">1</td></tr> <tr><td style="background-color: #FFFF00; padding: 2px;">Reactivity</td><td style="text-align: right; padding: 2px;">1</td></tr> </table> <div style="background-color: #000080; color: white; padding: 2px; margin-bottom: 5px;">1 = Exposure could cause irritation but only minor residual injury even if no treatment is given.</div> <div style="background-color: #FF0000; color: white; padding: 2px; margin-bottom: 5px;">1 = Must be preheated before ignition can occur..</div> <div style="background-color: #FFFF00; padding: 2px;">1 = Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently..</div> | Health | 1 | Fire | 1 | Reactivity | 1 | | |
| Health | 1 | | | | | | | | |
| Fire | 1 | | | | | | | | |
| Reactivity | 1 | | | | | | | | |
| 15.2 Chemical Safety Assessment: | | | | | | | | | |
| <ul style="list-style-type: none"> • A chemical safety assessment has been carried out for the substance or the mixture by the supplier (LR) - No | | | | | | | | | |
| Section 16 – OTHER INFORMATION | | | | | | | | | |
| 16.1 Technical Advice: | | | | | | | | | |
| <ul style="list-style-type: none"> • Use data given in this Safety Data Sheet and make an inventory list of all chemicals used in the factory; • Create a Register for Workplace Chemicals; • Set priorities concerning the safety in the organization; • Create emergency plans for the assessed hazards; • Organize occupational health care and regular surveys as necessary; | | | | | | | | | |

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| <ul style="list-style-type: none">• Organize contacts with authorities/laboratories to create a monitoring system for chemical hazards, and to reliably measure and/or estimate occupational exposures to chemicals when needed; |
| <ul style="list-style-type: none">• Start collecting case studies of accidents and sickness records in the enterprise to create a basis for priority measures in the control of hazards; |
| <ul style="list-style-type: none">• Involve workers in safety organizations, such as the system of Safety Representatives and Committees; |
| <ul style="list-style-type: none">• Do regular inspection using checklists made for the particular chemicals and chemical processes in use; |
| <ul style="list-style-type: none">• Mark and label all chemicals; |
| <ul style="list-style-type: none">• Keep at hand an inventory list of all chemicals handled in the place of work together with a collection of Chemical Safety Data Sheets for these chemicals; |
| <ul style="list-style-type: none">• Train workers to read and understand the Chemical Safety Information, including the health hazards and routes of exposure; train them to handle dangerous chemicals and processes with respect; |
| <ul style="list-style-type: none">• Plan, develop and choose the safe working procedures; |
| <ul style="list-style-type: none">• Reduce the number of people coming into contact with dangerous chemicals; |
| <ul style="list-style-type: none">• Reduce the length of time and/or frequency of exposure of workers to dangerous chemicals; |
| <ul style="list-style-type: none">• Train workers to know and understand the emergency procedures; |
| <ul style="list-style-type: none">• Equip and train workers to use personal protective equipment properly after everything possible has been done to eliminate hazards by means of other methods; |
| |
| 16.2 List of relevant R phrases: |
| R38: Irritating to skin. |