

### 1: IDENTIFICATION

<b>Chemical Name</b>	Sulphur		
<b>Synonyms</b>	Sulphur 90% Powder	<b>Trade Name</b>	<b>SULPHUR 90G</b>
<b>Uses</b>	Crop Nutrition	<b>Molecular Formula</b>	S or S <sub>8</sub>
<b>Manufacturer/ Supplier</b>	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
<b>Emergency Contact</b>	9503095030	<b>E-mail</b>	<a href="mailto:info@agrostar.in">info@agrostar.in</a>

### 2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Sulphur	7704-34-9	90.00%
Other Inert Ingredient	-	10.00%

### 3: HAZARD IDENTIFICATION

<b>Physical/Chemical Hazard:</b>	Toxicity Class: UN class 4.1
<b>Human Health Hazard:</b>	Acute toxicity-inhalation Category 4, Eye damage/irritation Category 2B
<b>Environmental Hazard:</b>	Chronic Toxicity: At low levels generally recognized as safe

### 4: FIRST AID MEASURES

**General:** Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

**Inhalation:** Move patients to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing is difficult, treat with artificial respiration and oxygen. Immediately seek medical attention if symptoms are severe or persist

**Ingestion:** Rinse mouth with water thoroughly and give plenty of water to drink. Amount swallowed incidental during normal handling are not expected to cause injury, burning sensation and diarrhea may occur. Seek medical attention or poison control center immediately and show this container or label.

**Skin Contact:** In case of contact with product, remove contaminated clothes and wash exposed skin area with plenty of water and soap immediately. Seek medical attention if irritation persists.

**Eye Contact:** Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

**Note to Physician:** No specific Antidote. Treat symptomatically.

### 5: FIRE FIGHTING MEASURES

**Extinguishing Media:** Water spray or fog, alcohol-resistant foam, dry chemical powder

**Unsuitable Extinguishing Media:** Carbon dioxide    **Specific Hazards:** In case of fire, fumes and irritating gases of SO<sub>x</sub> & CO<sub>x</sub> may released.

**Hazardous Thermal (de)composition:** The decomposition products are toxic fumes such as oxides of sulphur

**Special Procedures:** Collect extinguishing water separately and do not discharge into the drain or water bodies. If risk of water pollution occurs, notify appropriate authorities. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

**Protection of Fire Fighters:** Do not breathe a fumes, Wear fire/ flame resistant/retardant clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

### 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Ensure adequate ventilation. Avoid contact with the skin, eyes and clothing. Use personal protective equipment. Evacuate personnel to safe areas and keep them away from and upwind of spill/leak.

**Environmental Precaution:** Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

**Methods for Cleaning-up:** Sweep/ shovel up the spill. Avoid dust formation. Collect and transfer into containers for re-use or disposal. Clean contaminated floors and objects thoroughly with water and detergents. If possible spill should be recovered and applied according to label, if not then spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of in accordance with local regulations.

### 7: HANDLING & STORAGE

**Handling:** Do not smoke, drink, or eat during handling. Wash hands and other exposed areas with mild soap and water before and after handling material. Wear protective equipments to avoid contact and/or inhalation with the product. Wash clothing and equipment before reuse. Good personal hygiene procedures must be practiced.

**Specific Conditions:** Good local exhaust ventilation. Avoid dust formation

**Storage:** Store in dry, cool, well-ventilated area. Keep in original container and tightly closed when not in use. protect from direct sunlight and moisture. Keep product away from children, seeds, fertilizer, foods and animal feeds. Keep away from sources of ignition. Take precautionary measures against static discharges. Protect from temperatures above 40 °C, as it may led to change in properties if it is store for extended period of time

## 8: EXPOSURE CONTROL/PERSONAL PROTECTION

**Engineering Measures:** Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice.

**General Protection:** Avoid breathing dust, vapours or aerosols. Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

**Personal Protection:** Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

**Respiratory Protection:** Always use NIOSH/MSHA approved respiratory protection equipment with a universal filter type including particle filter.

**Skin Protection:** Wear suitable protective clothing, including long sleeved shirt, long pants, gloves, coveralls, and boots to avoid skin contact.

**Hand Protection:** Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

**Eye Protection:** Safety goggles, chemical splash goggles or face shield should be used. Safety showers and eyewash should be easily available.

**Others:** Wash clothing before reusing.

## 9: PHYSICAL/CHEMICAL PROPERTIES

<b>Appearance:</b> Powder	<b>pH:</b> 7 - 9	<b>Physical State:</b> Solid	<b>Flammability [g/m<sup>3</sup>] in air:</b> Explosive limits 35-1400
<b>Colour:</b> Yellow to brownish	<b>Density[g/cc]:</b> 1.88 @ 20°C	<b>Acidity (As H<sub>2</sub>SO<sub>4</sub>):</b> 0.5 % max.	<b>Solubility in Water:</b> Insoluble
<b>Bulk Density[kg/m<sup>3</sup>]:</b> 870-953	<b>Self-Ignition Temp. [°C]:</b> 246	<b>Thermal Decomp. Temp. [°C]:</b> 190	<b>Odour:</b> Specific Odour

## 10: STABILITY & REACTIVITY

**Stability:** Stable for two years under normal circumstances. **Materials to Avoid:** Strong oxidizing agents, as it become unstable and form SO<sub>2</sub>

**Hazardous Decomp. Products:** Thermal and humid decomposition products may release oxides of sulphur.

**Conditions to Avoid:** Humid, acid media, sources of ignition: heat, sparks, open flame and excess temperature

## 11: TOXICOLOGICAL INFORMATION

Rat oral LD <sub>50</sub> [mg/kg] : >5000	Rat inhalation LC <sub>50</sub> [mg/l/4h] : >5.4	Skin irritation (rabbit): Mild or non-irritant
Dermal (rat) LD <sub>50</sub> [mg/kg]: >2000	Skin Sensitization (Guinea Pig): Non-sensitizer	Eye irritation (rabbit): Moderately irritant

## 12: ECOLOGICAL INFORMATION

**Ecotoxicity:**

Rainbow trout LC<sub>50</sub> (96 hrs)[mg/L]: >100      Daphnia magna EC<sub>50</sub>(48 hrs) [mg/L]: >1,000      Green algae EC<sub>50</sub> (72 hrs)[mg/L]: >290

**Persistence, Degradability and Mobility in soil:** Sulphur is natural component and has natural cycle of oxidation and reduction reactions which transforms sulphur into both organic and inorganic products. Elemental sulphur is slowly converted to sulfate in soil by the action of autotrophic bacteria. Elemental sulphur leaches in soil as sulfate at a slow rate.

## 13: DISPOSAL CONSIDERATION

**Waste-disposal Procedures:** Dispose of this product only according to the label. Contaminated absorbents, used containers, surplus product, etc, should be sent to an incinerator, preferably designed for pesticide disposal, or buried in an approved landfill in compliance with local regulations.

**Contaminated Packaging:** Contaminated packaging should be emptied as far as possible and disposed of in accordance with official regulations after being thoroughly cleaned.

## 14: TRANSPORT INFORMATION

UN No. -      Proper Shipping Name: -

**Land Transport (ADR/RID)/ Sea Transport (IMO/IMDG)/ Air Transport (IATA/ICAO):** Not classified as a dangerous good under transport regulations

## 15: REGULATORY INFORMATION

**Hazard Symbol:** Signal Word: Warning

**Hazard Statement:** May form combustible dust concentration in air

## 16: OTHER INFORMATION

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