



AIF Trading® – Alexandria International for Trading & Contracting [AIF Trading]
 This report provides a comprehensive overview of high-purity sulphur, focusing on the various grades offered by AIF Trading, including granular, crushed, powder, and flakes. It details the extraction, production, and processing stages of sulphur, along with the specifications, applications, and advantages of each product type. The report also outlines the target markets, global demand, required documentation for buyers, and the commercial strategy for strong sales.

Executive Summary

Sulphur is an essential industrial raw material with diverse applications in fertilizers, petrochemicals, rubber, pharmaceuticals, detergents, mining, and metal refining. High-purity sulphur (99.5%–99.9%) is particularly sought after in Asia, Africa, Europe, and the Gulf region. AIF Trading offers multiple sulphur grades sourced from premium producers and refineries, including granular sulphur (2–5 mm), crushed sulphur (0–3 mm), sulphur powder (200–325 mesh), and sulphur flakes (high-purity industrial grade).

Stages of Sulphur Extraction, Production & Processing

1. Extraction Stage

Sulphur is obtained from natural deposits or recovered as a by-product of oil and gas refining. The primary extraction methods are:

- **Frasch Process:** This method involves injecting superheated water and air into underground sulphur deposits to melt the sulphur, which is then pumped to the surface.
- **Gas/Oil Refinery Recovery:** Sulphur is separated from hydrogen sulfide (H₂S) found in natural gas and crude oil using the Claus process.
- **Mining:** In certain regions, sulphur is directly extracted from surface or underground mines.

2. Purification & Chemical Treatment

Extracted sulphur undergoes purification to remove impurities and achieve high purity levels (99.5%–99.9%). This process includes:

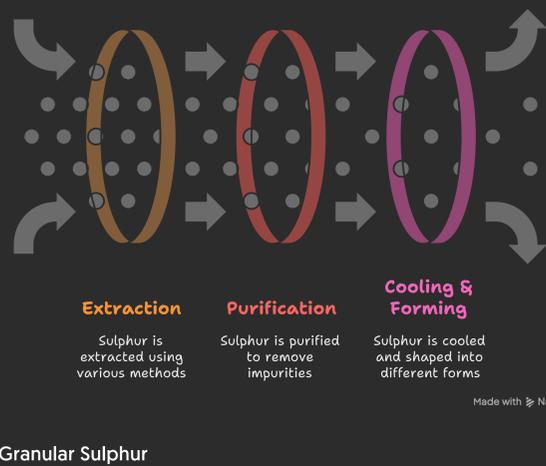
- Filtration and chemical separation.
- Removal of organic compounds and heavy metals.
- Conversion into industrial-grade sulphur suitable for various applications.

3. Cooling & Forming

Molten sulphur is cooled and shaped into different physical forms based on industrial requirements:

- **Granular Sulphur:** Formed by spraying molten sulphur into cooling chambers to create 2–5 mm spheres.
- **Crushed Sulphur:** Solid sulphur is mechanically broken into irregular particles (0–3 mm).
- **Sulphur Powder:** Ground into fine particles (200–325 mesh) for high-reactivity applications.
- **Sulphur Flakes:** Molten sulphur is poured onto cooled surfaces and scraped into thin

Sulphur Production Process



A. Granular Sulphur

- **Purity:** 99.5% – 99.9%
- **Color:** Bright yellow
- **Size:** 2–5 mm spheres
- **Moisture:** < 0.5%
- **Ash:** < 0.05%
- **Shape:** Uniform granules for easy handling

Main Applications:

- Fertilizer production (NPK, sulphur-coated urea)
- Agriculture soil treatment
- Rubber vulcanization
- Industrial chemicals
- Export-friendly handling & storage

B. Crushed Sulphur

- **Purity:** 99.5% – 99.8%
- **Size:** 0–3 mm (irregular particles)
- **Moisture:** < 0.5%

Applications:

- Fertilizer blending
- Acid manufacturing
- Industrial feedstock
- Mining operations

C. Sulphur Powder

- **Purity:** 99.7% – 99.9% (high purity)
- **Mesh Size:** 200–325 mesh
- **Color:** Bright yellow
- **Density:** Low bulk density

Applications:

- Fungicides & pesticides
- Pharmaceuticals
- Rubber vulcanization
- Fireworks & explosives
- Chemical industries
- Paints & resins

Powder sulphur is the most reactive form and widely used in chemical processing.

D. Sulphur Flakes

- **Purity:** 99.5% – 99.9%
- **Shape:** Thin flakes
- **Moisture:** < 0.5%

Applications:

- Petrochemical industries
- Detergent manufacturing
- Metal processing
- Water treatment
- Textile chemicals

Flakes melt quickly and are preferred in high-temperature industrial processes.

Sulphur Types Comparison

Characteristic	Granular Sulphur	Crushed Sulphur	Sulphur Powder	Sulphur Flakes
Purity	99.5% – 99.9%	99.5% – 99.8%	99.7% – 99.9%	99.5% – 99.9%
Size	2–5 mm spheres	0–3 mm (irregular particles)	200–325 mesh	Thin flakes
Color	Bright yellow	Not specified	Bright yellow	Not specified
Moisture	0.5%	0.5%	Not specified	0.5%
Ash	0.05%	Not specified	Not specified	Not specified
Shape	Uniform granules	Irregular particles	Not specified	Thin flakes
Density	Not specified	Not specified	Low bulk density	Not specified
Applications	Fertilizer, soil treatment, rubber, chemicals, export	Fertilizer, acid, feedstock, mining	Fungicides, pharmaceuticals, rubber, explosives, chemicals, paints	Petrochemical, detergent, metal, water, textile

Made with Napkin

General Advantages of High-Purity Sulphur Provided

Purity up to 99.9% suitable for all industrial uses.

1. Multiple forms (granules, flakes, powder, crushed).
2. Consistent physical and chemical quality.
3. Perfect for bulk handling (granular & flakes).
4. Strong demand in fertilizer & petrochemical industries.
5. Flexible packaging:

Top Sulphur Packaging Options

50 kg Bags

Suitable for smaller industrial and agricultural applications.

Bulk Vessels

Ideal for large-scale industrial use with efficient handling.

1-Ton Jumbo Bags

Convenient for bulk handling and storage needs.



Target Markets & Global Demand

Top Priority Markets

- **India:** Largest global consumer for fertilizer & chemical sulphur
- **China:** Petrochemicals & industrial chemicals
- **Turkey:** Agriculture & detergent factories
- **Saudi Arabia, UAE, Qatar:** Petrochemical & fertilizer industries
- **Vietnam, Thailand, Indonesia:** Agriculture & chemicals

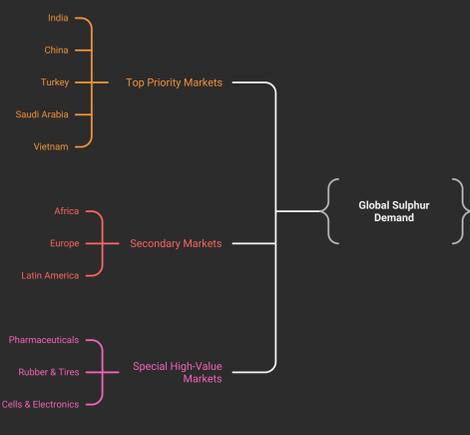
Secondary Markets

- **Africa:** Egypt, Morocco, Kenya, South Africa
- **Europe:** Greece, Italy, Spain, Ukraine
- **Latin America:** Brazil, Chile, Peru

Special High-Value Markets

- Pharmaceutical manufacturers
- Rubber & tire factories
- Solar cell & electronics chemical industries

Global Sulphur Demand and Target Markets



Commercial Strategy for Strong Sales

1. Offer customers all four grades (granular, crushed, flakes, powder).
2. Provide CoA & MSDS with every shipment.
3. Promote high purity (99.8%–99.9%) to premium buyers.
4. Focus on fertilizers, petrochemicals, rubber industries.
5. Provide flexible Incoterms (FOB, CFR, CIF).
6. Highlight the availability of jumbo bags for safe export.

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1. EXTRACTION
Sulphur sourced from natural or recovered as a by-product from oil and gas refining.
• Frasch Process: Gassit Refinery
• Recovery: Mining

2. PURIFICATION & CHEMICAL TREATMENT
• Filtration, chemical separation &
• Removal of organics & heavy metals

3. QUALITY CONTROL & CERTIFICATION
• CoA
• MSDS
• SGS
• Bulk shipments
• SGS / EuroCert
• Certificate of Origin

5. PACKAGING & LOGISTICS
• Bulk shipments
• 1-ton jumbo bags
• 50 kg woven bags

6. DISTRIBUTION & INDUSTRIAL USE

GRANULAR	CRUSHED	POWDER	FLAKES	DISTRIBUTION
• Fertilizers	• Cranular	• Pharmaceuticals	• Petrochemicals	• Bulk shipments
• Rubber	• Crushed	• Pesticides	• Detergents, Textiles	• 1-ton jumbo bags
				• 50 kg woven bags

Final products are distributed globally and used across industries:

GRANULAR **CRUSHED** **POWDER** **FLAKES**