BASROM

SAFETY DATA SHEET — COMPLIANT WITH GHS REV.8

Basic Chromium Sulfate Chromium(III) Sulfate Basic

Document No. BAS-SDS-001 | Revision Date: July 2026 | Supersedes: New

1. Identification

Product Name	Basic Chromium Sulfate (GS Series: GS-A, GS-B, GS-C, GS-E)
Chemical Name	Chromium(III) Sulfate Basic; Chromium Hydroxide Sulfate
CAS Number	12336-95-7
Molecular Formula	$Cr(OH)SO_4$
Recommended Use	Leather tanning, textile mordant, catalyst precursor, pigment manufacturing, metal passivation
Manufacturer	Hanzhong Delike New Materials Co., Ltd. — Hanzhong, Shaanxi, China
Emergency Contact	+86 13582328790 (24h) | sales@chromiumsulfate.com

2. Hazard Identification

GHS07

WARNING

GHS Classification:

- Skin Irritation — Category 2 (H315: Causes skin irritation)
- Eye Irritation — Category 2A (H319: Causes serious eye irritation)
- Specific Target Organ Toxicity (Single Exposure) — Category 3 (H335: May cause respiratory irritation)

Precautionary Statements:

P261: Avoid breathing dust. P264: Wash hands thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves, eye protection, and dust mask. P305+P351+P338: IF IN EYES — Rinse cautiously with water for several minutes. Remove contact lenses if present. P312: Call a POISON CENTER or doctor if you feel unwell.

⚠ This product contains ONLY trivalent chromium (Cr^{3+}). It does NOT contain hexavalent chromium (Cr^{6+}) — verified ND (Not Detected) per batch COA.

3. Composition / Information on Ingredients

COMPONENT	CAS NO.	CONCENTRATION
Chromium(III) Sulfate Basic	12336-95-7	≥ 98% (GS-A: 25% Cr; GS-B: 26% Cr; GS-C: 22% Cr; GS-E: 20% Cr)
Sodium Sulfate (residual)	7757-82-6	≤ 2%
Water	7732-18-5	≤ 1%

4. First Aid Measures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. Seek medical attention if symptoms persist.

Skin Contact: Wash immediately with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention if irritation develops.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention.

Ingestion: Rinse mouth with water. Do NOT induce vomiting. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

5. Firefighting Measures

Flammability: Product is not flammable and not combustible.

Suitable Extinguishing Media: Use extinguishing measures appropriate to surrounding fire. Water spray, dry chemical, CO_2, or alcohol-resistant foam.

Special Hazards: May release sulfur oxides (SO_x) and chromium oxide fumes under extreme thermal decomposition (>400°C).

Protective Equipment: Wear self-contained breathing apparatus (SCBA) and full protective gear.

6. Accidental Release Measures

Personal Precautions: Wear appropriate PPE (gloves, goggles, dust mask). Avoid dust generation. Ensure adequate ventilation.

Environmental Precautions: Prevent entry into waterways, drains, or soil. Contain spill if safe to do so.

Cleanup Methods: Sweep or vacuum spilled material into suitable, labeled containers. Avoid dry sweeping that generates airborne dust. Damp mop or use HEPA-filtered vacuum. Dispose of in accordance with local regulations.

7. Handling and Storage

Handling: Use local exhaust ventilation. Avoid contact with skin, eyes, and clothing. Avoid dust formation. Wash hands and face thoroughly after handling. Do not eat, drink, or smoke in work areas.

Storage: Store in tightly closed original containers in a cool (5–35°C), dry, well-ventilated area. Protect from moisture — product is hygroscopic. Keep away from strong oxidizing agents and strong bases. Shelf life: 24 months in unopened original packaging.

8. Exposure Controls / Personal Protection

COMPONENT	OEL (8H TWA)	STEL
Chromium(III) compounds (as Cr)	0.5 mg/m³ (ACGIH TLV-TWA)	—
Particulates Not Otherwise Classified	10 mg/m³ (inhalable) / 3 mg/m³ (respirable)	—

Engineering Controls: Local exhaust ventilation recommended. Safety shower and eyewash station should be nearby.

Eye Protection: Chemical safety goggles or face shield (EN 166).

Skin Protection: Nitrile or neoprene gloves (EN 374). Long-sleeved protective clothing.

Respiratory Protection: NIOSH-approved P95 or N95 particulate respirator if dust is generated. For higher concentrations, use supplied-air respirator.

9. Physical and Chemical Properties

Appearance	Dark green to violet crystalline powder
Odor	Odorless
pH (1% solution)	2.5 – 4.0 (depending on grade)
Melting Point	Decomposes > 100°C
Solubility in Water	Soluble (~50 g/100mL at 20°C)
Bulk Density	0.8 – 1.1 g/cm³
Vapor Pressure	Negligible
Flash Point	Not applicable (non-flammable solid)

10. Stability and Reactivity

Chemical Stability: Stable under normal handling and storage conditions.

Conditions to Avoid: Excessive moisture, extreme heat (>100°C).

Incompatible Materials: Strong oxidizing agents, strong bases (alkaline materials).

Hazardous Decomposition Products: Sulfur oxides (SO_2, SO_3), chromium oxide fumes (Cr_2O_3) upon thermal decomposition.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Acute Toxicity:

- Oral LD_{50} (Rat): > 2,000 mg/kg (low acute toxicity)
- Dermal LD_{50} (Rabbit): > 2,000 mg/kg

Skin Corrosion / Irritation: Causes skin irritation (Category 2). Prolonged contact may cause dermatitis.

Eye Damage / Irritation: Causes serious eye irritation (Category 2A). Dust may cause mechanical irritation.

Respiratory Sensitization: May cause respiratory irritation from dust inhalation (Category 3, STOT SE).

Carcinogenicity: Trivalent chromium (Cr^{3+}) compounds are NOT classified as carcinogenic by IARC, NTP, or OSHA. This product contains NO hexavalent chromium (Cr^{6+}).

Mutagenicity / Reproductive Toxicity: No data suggesting mutagenic or reproductive effects for Cr^{3+} compounds.

12. Ecological Information

Ecotoxicity: Low acute aquatic toxicity for trivalent chromium compounds. Avoid release to environment in large quantities.

Persistence & Degradability: Inorganic compound — standard biodegradation tests not applicable. Trivalent chromium may precipitate as $Cr(OH)_3$ in neutral/alkaline waters and bind to sediment.

Bioaccumulation: Low bioaccumulation potential for Cr^{3+}.

Mobility in Soil: Binds to soil particles; limited mobility. May leach under acidic conditions.

13. Disposal Considerations

Dispose of in accordance with all applicable local, regional, and national regulations. Do not discharge into waterways or drains. Preferred disposal: authorized chemical waste treatment facility. Empty containers: rinse thoroughly before recycling or disposal. Contaminated packaging should be disposed of as chemical waste.

14. Transport Information

UN Number	Not regulated for transport
ADR/RID Class	Not classified as dangerous goods
IMDG Code	Not classified as marine pollutant
IATA-DGR	Not restricted

Basic chromium sulfate (Cr^{3+}) is NOT classified as hazardous for transport under UN Model Regulations. No special transport precautions required beyond standard safe handling for industrial chemicals.

15. Regulatory Information

GHS Labeling: Signal word "WARNING". H315 + H319 + H335. P261, P264, P271, P280, P305+P351+P338, P312.

EU REACH: Chromium(III) sulfate basic is registered under EU REACH Regulation (EC) No. 1907/2006.

China: Listed in the Inventory of Existing Chemical Substances of China (IECSC).

USA TSCA: Listed on the TSCA Inventory.

Note: This product contains only trivalent chromium (Cr^{3+}) and is NOT subject to hexavalent chromium (Cr^{6+}) restrictions under EU REACH Annex XVII Entry 47 or equivalent regulations.

16. Other Information

Date of Preparation: July 10, 2026

Revision: Original issue

References: GHS Revision 8; IARC Monographs Vol. 49; ACGIH TLVs and BEIs; ECHA Registered Substances Database.

Disclaimer: The information provided in this Safety Data Sheet is based on our current knowledge and experience. It is intended to describe the product solely for health, safety, and environmental requirements. It should not be interpreted as guaranteeing any specific product property or suitability for a particular application. Users should conduct their own assessments to determine the suitability of this information for their particular purposes.

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END OF SAFETY DATA SHEET