

Section 1: Identification of the Substance/Mixture and of the Company

- **Product Name:** GJM-534
 - **Intended Use:** Textile dyeing
 - **Manufacturer/Supplier:**
 - **Company:** JOANNEUM RESEARCH Forschungsgesellschaft mbH
 - **Address:** Leonhardstrasse 59, A-8010 Graz, Austria
 - **Phone:** +43 316 876-0
 - **Email:** info@joanneum.at
 - **Emergency Number:** Poison Information Centre, 24/7 emergency hotline: +43 1 406 43 43, <https://goeg.at/Vergiftungsinformation>, Stubenring 6, 1010 Vienna, kontakt@goeg.at
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Section 2: Hazards Identification

- **Classification of the substance or mixture:**
 - According to Regulation (EC) No. 1272/2008 (CLP): This substance does not meet the criteria for classification under Regulation (EC) No. 1272/2008.
 - **Label Elements:**
 - Labelling according to Regulation (EC) No. 1272/2008 (CLP): Not required
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Section 3: Composition/Information on Ingredients

- **Substance name:** GJM-534, 4-[4-(2-Hydroxyethanesulfonyl)-phenylazo]-2,6-dimethoxyphenol; 4-[2-[4-[(2-Hydroxyethyl)sulfonyl]phenyl]diazanyl]-2,6-dimethoxyphenol
 - **Possible impurities:** Sodium chloride, sodium acetate, acetic acid
 - **Formula:** C₁₆H₁₈N₂O₆S
 - **Molecular Weight:** 366.40 g/mol
 - **CAS Number:** 1092484-74-6
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Section 4: First Aid Measures

- **General Advice:** Remove contaminated clothing.
- **After Inhalation:** Ensure supply of fresh air.
- **After Skin Contact:** Wash with water/shower.
- **After Eye Contact:** Rinse cautiously with water for several minutes.
- **After Ingestion:** Rinse mouth. Call a doctor if feeling unwell.

- **Most important symptoms/effects, acute and delayed:** No known symptoms or effects.
 - **Indication of any immediate medical attention or special treatment needed:** None
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Section 5: Firefighting Measures

- **Suitable extinguishing media:** Adapt extinguishing measures to the surrounding environment! Water, foam, alcohol-resistant foam, dry chemical powder, ABC powder



- **Special hazards arising from the substance:** In case of fire: Nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), sulfur oxides (SO_x) may form
 - **Advice for firefighters:** Do not inhale explosion or combustion gases. Fight fire with standard precautions from a safe distance. Wear self-contained breathing apparatus.
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Section 6: Accidental Release Measures

Personal precautions, protective equipment and emergency procedures



- **For untrained personnel:** Avoid dust formation.
- **Environmental precautions:** Prevent entry into drains or surface and groundwater. Retain and dispose of contaminated wash water.

Methods and material for containment and cleaning up:

- **Instructions on how to prevent spilled materials from spreading:** Cover the drains. Pick up mechanically.
- **Instructions on how cleaning should be carried out in case of spillage:** Pick up mechanically.
- **Additional information regarding spillage and release:** Place in suitable containers for disposal. Ventilate the affected area.

Reference to other sections:

Hazardous combustion products: see Section 5. Personal protective equipment: see Section 8. Incompatible materials: see Section 10. Disposal information: see Section 13.

Section 7: Handling and Storage

- **Precautions for safe handling:** Ensure adequate ventilation.

- **General hygiene advice:** Keep away from food, drink, and animal feed.
- **Conditions for safe storage, including incompatibilities:** Store in a dry place.
- **Incompatible substances/mixtures:** Observe storage compatibility (e.g., TRGS 510 - Germany). See section 10 for incompatibilities.
- **Ventilation requirements:** Use local and general ventilation.
- **Special requirements for storage rooms/containers:** Recommended storage temperature: 15–25°C. Store protected from direct sunlight.
- **Storage of hazardous substances in movable containers (TRGS 510, Germany):** Storage class (LGK): 13 (non-combustible solids)

Section 8: Exposure Controls/Personal Protection

- **Occupational exposure limits:** Not known
- **Personal protective equipment:**
 - **Eye protection:** Wear safety goggles with side protection



- **Hand protection:** Wear suitable chemical-resistant gloves tested to EN 374. Material: NBR (nitrile rubber), thickness > 0.11 mm
- **Respiratory protection:** Required in case of dust formation. Particle filter device (EN 143), P1 (filters ≥ 80% of airborne particles, color code: white)



Section 9: Physical and Chemical Properties

- **Appearance:** Powder, red
- **Odor:** Characteristic
- **Melting point:** 161–168 °C
- **Boiling point:** Not determined
- **Solubility:** Approx. 12 mg/L in water at room temperature
- **pH:** 6.3 in above aqueous solution at room temperature
- **Density:** Not determined
- **Partition coefficient n-octanol/water (log value):** Not determined
- **Vapor pressure:** Not determined
- **Particle characteristics:** No data available

- **Oxidizing properties:** None
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Section 10: Stability and Reactivity

- **Reactivity:** Dust explosion possible
 - **Chemical stability:** The material is stable under normal ambient conditions and under the temperature and pressure conditions expected during storage and handling
 - **Possibility of hazardous reactions:** Violent reactions with strong oxidizers
 - **Conditions to avoid:** Protect from heat. Decomposition at high temperatures
 - **Incompatible materials:** No further information available
 - **Hazardous decomposition products:** See section 5 for combustion products
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Section 11: Toxicological Information

- **Acute toxicity:** Not known
 - **Skin irritation:** Not known
 - **Eye irritation:** Not known
 - **Long-term effects:** Not known
 - **Symptoms related to physical, chemical, and toxicological characteristics:**
 - **Ingestion:** No data available
 - **Eye contact:** No data available
 - **Inhalation:** No data available
 - **Skin contact:** No data available
 - **Other information:** No known health effects
 - **Endocrine disrupting properties:** Does not contain an endocrine disruptor (ED) at $\geq 0.1\%$ concentration
 - **Other hazards:** No additional information available
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Section 12: Ecological Information

- **Water hazard classification:** Not known
 - **Biodegradability:** Not known
 - **Bioaccumulation:** Not known
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Section 13: Disposal Considerations

- **Disposal methods:** Contact an authorized waste disposal contractor
- **Wastewater disposal-related information:** Do not allow to enter drains
- **Disposal of contaminated packaging:** Treat like the product itself. Fully emptied containers can be recycled

- **Applicable waste legislation:** The assignment of waste code numbers/waste designations is to be carried out in accordance with the European Waste Catalogue (EWC) based on industry and process specifics. Waste Catalogue Ordinance (the AVV replaces the EWC Ordinance/European Waste Catalogue Ordinance).
 - **Notes:** Separate waste according to local/national waste disposal regulations. Follow relevant national/regional legislation. Uncontaminated, empty packaging may be recycled
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Section 14: Transport Information

- **UN Number:** Not subject to transport regulations
 - **UN Proper Shipping Name:** Not assigned
 - **Transport hazard class:** Not assigned
 - **Packing group:** Not assigned
 - **Environmental hazards:** Not environmentally hazardous according to transport regulations
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Section 15: Regulatory Information

- **EU regulations:** According to REACH Article 14(1), a chemical safety assessment will be conducted if the substance is registered in amounts ≥ 10 tonnes/year/registrant
 - **National regulations:** Not known
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Section 16: Other Information

- **Abbreviations:**
 - ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 - ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 - AVV: Waste Catalogue Ordinance (Germany)
 - EAK: European Waste Catalogue
 - EAKV: Ordinance introducing the European Waste Catalogue
 - CAS: Chemical Abstracts Service
 - CLP: Regulation (EC) No. 1272/2008 on the classification, labelling and packaging (CLP) of substances and mixtures
 - DGR: Dangerous Goods Regulations (IATA)
 - ED: Endocrine Disruptor
 - EC-No.: European Community Number
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances

- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- IATA: International Air Transport Association
- IMDG: International Maritime Dangerous Goods Code
- LGK: Storage Class (Germany)
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
- RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
- TRGS: Technical Rules for Hazardous Substances (Germany)
- **Sources of data:**
 - Regulation (EC) No. 1272/2008 (CLP)
 - Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU
 - ADR/RID/ADN regulations for road, rail, and inland waterway transport
 - IMDG Code
 - IATA Dangerous Goods Regulations
- **Notes:** For industrial use only
- **Revision History:** Version 1.0 dated 23.07.2025
- **Disclaimer:** The information provided is based on our current knowledge. This MSDS was compiled specifically for this product and is intended solely for its use.