

Material Safety Data Sheet

Mercury (II) Sulfate, Reagent ACS (Powder)

ACC# 00954

Section 1 - Chemical Product and Company Identification

MSDS Name: Mercury (II) Sulfate, Reagent ACS (Powder)

Catalog Numbers: AC413650000, AC413650050, AC413651000, AC413655000

Synonyms: Mercuric Sulfate; Mercury Bisulfate; Mercury Persulfate; Sulfuric Acid Mercury (2+) Salt

Company Identification:

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01

For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7783-35-9	Mercuric Sulfate	>98	231-992-5

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white powder.

Danger! Toxic. Causes digestive tract burns. Causes eye burns. Harmful if swallowed. Causes respiratory tract irritation. May be absorbed through intact skin. May cause central nervous system effects. Causes skin burns. May cause kidney damage. Hygroscopic (absorbs moisture from the air). Light sensitive. Moisture sensitive. May cause reproductive and fetal effects.

Target Organs: Blood, kidneys, central nervous system.

Potential Health Effects

Eye: Contact may cause severe eye irritation and possible eye damage.

Skin: May be absorbed through the skin. May cause severe irritation and possible burns.

Ingestion: Harmful if swallowed. May cause kidney damage. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. May cause adverse nervous system effects and possible

Inhalation: May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. May cause effects similar to those described for ingestion.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. May cause anemia and other blood cell abnormalities. Repeated exposure may cause central nervous system damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Antidote: The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes.

Extinguishing Media: Use foam, dry chemical, or carbon dioxide. Use agent most appropriate to extinguish fire.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: ; Flammability: ; Instability:

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Store protected from light.

Storage: Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Poison room locked.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Mercuric Sulfate	0.025 mg/m ³ TWA (as Hg) (listed under Mercury inorganic compounds).Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Mercury inorganic compounds).	0.05 mg/m ³ TWA (vapor, except organo alkyls, as Hg) (listed under Mercury compounds).10 mg/m ³ IDLH (as Hg, not including organo(alkyl) compounds) (listed under Mercury compounds).	0.1 mg/m ³ Ceiling (listed under Mercury, aryl and inorganic compounds).

OSHA Vacated PELs: Mercuric Sulfate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Appearance: white

Odor: None reported.

pH: Not available.

Vapor Pressure: Negligible.

Vapor Density: 17

Evaporation Rate: Negligible.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Insoluble.

Specific Gravity/Density: 6.4700g/cm³

Molecular Formula: HgO₄S

Molecular Weight: 296.64

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: High temperatures, incompatible materials, light, moisture.

Incompatibilities with Other Materials: Substance decomposes when exposed to water, violently reacts with hydrogen chloride, and is corrosive to many metals (including aluminum, copper, iron, magnesium, lead, and zinc).

Hazardous Decomposition Products: Oxides of sulfur, mercury/mercury oxides.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 7783-35-9: OX0500000

LD50/LC50:

CAS# 7783-35-9:

Oral, mouse: LD50 = 25 mg/kg;

Oral, rat: LD50 = 57 mg/kg;

Skin, rat: LD50 = 625 mg/kg;

Carcinogenicity:

CAS# 7783-35-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Mutagenicity: Please refer to RTCES# OX0500000 for specific information.
Neurotoxicity: No information available.
Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: Inorganic mercury sources can be converted to organic forms by microorganisms in air, water, and soil. Bioaccumulation of mercury may occur in aquatic settings.
Physical: No information available.
Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	MERCURY SULFATES	MERCURIC SULFATE
Hazard Class:	6.1	6.1
UN Number:	UN1645	UN1645
Packing Group:	II	II

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 7783-35-9 is listed on the TSCA inventory.

Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.

Section 12b
None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs
CAS# 7783-35-9: 10 lb final RQ; 4.54 kg final RQ

SARA Section 302 Extremely Hazardous Substances
None of the chemicals in this product have a TPQ.

SARA Codes
CAS # 7783-35-9: acute, chronic.

Section 313
This material contains Mercuric Sulfate (listed as Mercury compounds), >98%, (CAS# 7783-35-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:
CAS# 7783-35-9 (listed as Mercury compounds) is listed as a hazardous air pollutant (HAP).
This material does not contain any Class 1 Ozone depleters.
This material does not contain any Class 2 Ozone depleters.

Clean Water Act:
CAS# 7783-35-9 is listed as a Hazardous Substance under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA. CAS# 7783-35-9 is listed as a Toxic Pollutant under the Clean Water Act.

OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.

STATE
CAS# 7783-35-9 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Massachusetts.

California Prop 65

WARNING: This product contains Mercuric Sulfate, listed as 'Mercury compounds', a chemical known to the state of California to cause developmental reproductive toxicity.
California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T+

Risk Phrases:

R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
R 33 Danger of cumulative effects.

Safety Phrases:

S 1/2 Keep locked up and out of reach of children.
S 13 Keep away from food, drink and animal feeding stuffs.
S 28 After contact with skin, wash immediately with...
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 28A After contact with skin, wash immediately with plenty of water.

WGK (Water Danger/Protection)

CAS# 7783-35-9: 3

Canada - DSL/NDL

CAS# 7783-35-9 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D1A, D2A.

Canadian Ingredient Disclosure List

CAS# 7783-35-9 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 7/16/1998

Revision #2 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.