Material Safety Data Sheet
Silver perchlorate hydrate

MSDS# 23085

Section 1 - Chemical Product and Company Identification

MSDS Name:	Silver perchlorate hydrate
Catalog Numbers:	AC210210000, AC210210050, AC210210250
Synonyms:	None Known.
Company Identification:	Acros Organics BVBA Janssen Pharmaceuticalaan 3a 2440 Geel, Belgium
Company Identification: (USA)	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	800-ACROS-01
For information in Europe, call:	+32 14 57 52 11
Emergency Number, Europe:	+32 14 57 52 99
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300
CHEMTREC Phone Number, Europe:	703-527-3887

Section 2 - Composition, Information on Ingredients

Risk Phrases:

CAS#:	14242-05-8
Chemical Name:	Silver perchlorate hydrate
%:	99%
EINECS#:	unlisted
Hazard Symbols:	

Text for R-phrases: see Section 16

Hazard Symbols: O

Risk Phrases: 30 38 8

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Strong oxidizer. Contact with other material may cause a fire. May cause methemoglobinemia. May cause central nervous system effects. May cause cardiac disturbances. May cause liver and kidney damage. May cause severe eye, skin and respiratory tract irritation with possible burns. Target Organs: Blood, kidneys, central nervous system, liver, cardiovascular system, blood forming organs.

Potential Health Effects

Eye: May cause conjunctivitis. May cause permanent corneal opacification.

Skin: May cause severe irritation and possible burns.

Ingestion: May cause liver and kidney damage. May cause cardiac disturbances. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, and death. May cause

central nervous system effects. May cause burns to the gastrointestinal tract. May cause nausea, vomiting, and diarrhea, possibly with blood.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. May cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), convulsions, tachycardia, dyspnea (labored breathing), and death. May cause liver and kidney damage. May cause cardiac abnormalities. May cause acute pulmonary edema, asphyxia, chemical pneumonitis, and upper airway obstruction caused by edema.

Chronic: May cause liver and kidney damage. May cause methemoglobinemia, which is characterized by chocolate-brown colored blood, headache, weakness, dizziness, breath shortness, cyanosis (bluish skin due to deficient oxygenation of blood), rapid heart rate, unconsciousness and possible death. Effects may be delayed.

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. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.

Notes to Physician: For methemoglobinemia, administer oxygen alone or with Methylene Blue depending on the methemoglobin concentration in the blood.

Antidote: Methylene blue, alone or in combination with oxygen is indicated as a treatment in nitrite induced methemoglobinemia.

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. Strong oxidizer. Contact with other material may cause fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water with caution and in flooding amounts. Some oxidizers may react explosively with hydrocarbons(fuel). May accelerate burning if involved in a fire. Containers may explode when heated. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: Contact professional fire-fighters immediately. Cool containers with flooding quantities of water until well after fire is out. For small fires, do NOT use dry chemicals, carbon dioxide, halon or foams. USE WATER ONLY. For large fires flood fire with water from a distance.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: ; instability: OX

Section 6 - Accidental Release Measures

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

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Remove all sources of ignition. Do not use combustible materials such as paper towels to clean up spill.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with clothing and other combustible materials. Do not get on skin or in eyes. Avoid ingestion and inhalation.

Storage: Keep away from heat, sparks, and flame. Do not store near combustible materials. Keep refrigerated. (Store below 4°C/39°F.)

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Silver perchlorate	none listed	none listed	none listed
Silver perchlorate hydrate	none listed	none listed	none listed

OSHA Vacated PELs: Silver perchlorate: None listed Silver perchlorate hydrate: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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 a chemical apron. Wear appropriate protective clothing to minimize contact with skin.

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: Crystals

Color: moist white

Odor: None reported.

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 43 deg C (109.40°F)

Decomposition Temperature: Not available

Solubility in water: 557 g/100ml

Specific Gravity/Density:

Molecular Formula: AgClO4.xH2O

Molecular Weight: 207.32

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, dust generation, excess heat, combustible materials, reducing agents, strong oxidants.

Incompatibilities with Other Materials: Reducing agents, alcohols.

Hazardous Decomposition Products: Hydrogen chloride, hydrogen chloride, oxides of silver, oxides of chlorine.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7783-93-9: None listed
CAS# 14242-05-8: None listed

LD50/LC50: RTECS: Not available. RTECS: Not available.

Silver perchlorate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Carcinogenicity: Silver perchlorate hydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: No information found.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: PERCHLORATES, INORGANIC, N.O.S. (SILVER PERCHLORATE HYDRATE)
Hazard Class: 5.1
UN Number: UN1481
Packing Group: II
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: O

Risk Phrases:

R 30 Can become highly flammable in use.

R 38 Irritating to skin.

R 8 Contact with combustible material may cause fire.

Safety Phrases:

S 15 Keep away from heat.

WGK (Water Danger/Protection)

CAS# 7783-93-9: 3

CAS# 14242-05-8: Not available

Canada

CAS# 7783-93-9 is listed on Canada's NDSL List

Canadian WHMIS Classifications: C, D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7783-93-9 is not listed on Canada's Ingredient Disclosure List.

CAS# 14242-05-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 7783-93-9 is listed on the TSCA Inventory.

CAS# 14242-05-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form in on the Inventory (40CFR720.3(u)(2)).

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

Revision #7 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available

to us. However, we make no warranty of merchantibility 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 the company 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 the company has been advised of the possibility of such damages.
