

# Material Safety Data Sheet

## Ammonium hexachloroplatinate(IV), 99.999%

ACC# 48000

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Ammonium hexachloroplatinate(IV), 99.999%

**Catalog Numbers:** AC193720000, AC193720010

**Synonyms:** Ammonium chloroplatinate; Ammonium platinic chloride; Diammonium hexachloroplatinate; Diammonium hexachloroplatinate(2-); Platinato(2-), hexachloro-, diammonium, (OC-6-11)-; Platinic ammonium chloride; Quaternium-17

#### 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
16919-58-7	Ammonium hexachloroplatinate(IV)	99.999	240-973-0

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: yellow powder.

**Warning!** Toxic. May be fatal if inhaled. Harmful if swallowed. Dust causes severe irritation of the eyes, skin and respiratory tract. May cause sensitization by inhalation and by skin contact.

**Target Organs:** Lungs.

#### Potential Health Effects

**Eye:** Causes eye irritation. Lachrymator (substance which increases the flow of tears). Causes redness of eyes and swelling of eyelids.

**Skin:** May cause irritation and dermatitis. May cause sensitization by skin contact.

**Ingestion:** Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** May be fatal if inhaled. May cause pulmonary fibrosis and permanent damage. May cause respiratory sensitization. Symptoms include asthma, sneezing, coughing, bronchitis, tightness of chest, and irritation of nose and throat.

**Chronic:** Repeated exposure may cause sensitization dermatitis. Chronic inhalation may cause pulmonary emphysema. Chronic inhalation may cause pulmonary fibrosis.

### 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. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. 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 victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Notes to Physician:** Treat symptomatically and supportively.

### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 1

### Section 6 - Accidental Release Measures

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

**Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Use only in a chemical fume hood. Do not breathe dust.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ammonium hexachloroplatinate(IV)	0.002 mg/m <sup>3</sup> TWA (as Pt) (listed under Platinum soluble salts).	0.002 mg/m <sup>3</sup> TWA (as Pt) (listed under Platinum soluble salts).4 mg/m <sup>3</sup> IDLH (as Pt) (listed under Platinum soluble salts).	0.002 mg/m <sup>3</sup> TWA (as Pt) (listed under Platinum soluble salts).

**OSHA Vacated PELs:** Ammonium hexachloroplatinate(IV): 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 protective gloves and clothing to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Powder

**Appearance:** yellow

**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:** decomposes

**Decomposition Temperature:** Not available.

**Solubility:** 0.7g/100ml (15° C)

**Specific Gravity/Density:** 3.0650g/cm<sup>3</sup>

**Molecular Formula:** H<sub>8</sub>Cl<sub>6</sub>N<sub>2</sub>Pt

**Molecular Weight:** 443.89

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures. Dusts may form an explosion hazard. Boiling with potassium hydroxide yields a product that, after drying, explodes at 205°C or when mixed with combustible materials.

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities with Other Materials:** Alkalies, potassium hydroxide.

**Hazardous Decomposition Products:** Hydrogen chloride, nitrogen oxides, ammonia and/or derivatives, nitrogen, chloride fumes.

**Hazardous Polymerization:** Has not been reported.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 16919-58-7: BP5425000

### LD50/LC50:

**CAS#** 16919-58-7:

Oral, rat: LD50 = 195 mg/kg;

Inhalation, rat: LC = 365

### Carcinogenicity:

**CAS#** 16919-58-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No data available.

**Teratogenicity:** No data available.

**Reproductive Effects:** No data available.

**Mutagenicity:** No data available.

**Neurotoxicity:** No data available.

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** No data available. No information available.

**Environmental:** No data available.

**Physical:** No data 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

	<b>US DOT</b>	<b>Canada TDG</b>
<b>Shipping Name:</b>	DOT regulated - small quantity provisions apply (see 49CFR173.4)	No information available.
<b>Hazard Class:</b>		
<b>UN Number:</b>		
<b>Packing Group:</b>		

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 16919-58-7 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

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

#### Section 313

No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

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

#### STATE

CAS# 16919-58-7 can be found on the following state right to know lists: California, (listed as Platinum soluble salts), New Jersey, Pennsylvania, (listed as Platinum soluble salts), Minnesota, (listed as Platinum soluble salts), Massachusetts.

#### California Prop 65

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 25 Toxic if swallowed.

R 40 Limited evidence of a carcinogenic effect.

#### Safety Phrases:

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**WGK (Water Danger/Protection)**

CAS# 16919-58-7: 2

**Canada - DSL/NDSL**

CAS# 16919-58-7 is listed on Canada's DSL List.

**Canada - WHMIS**

This product has a WHMIS classification of D1B, D2A.

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.

**Canadian Ingredient Disclosure List**

CAS# 16919-58-7 is listed on the Canadian Ingredient Disclosure List.

## Section 16 - Additional Information

**MSDS Creation Date:** 9/02/1997**Revision #4 Date:** 10/03/2005

*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.*