

Material Safety Data Sheet

Nickel (II) Acetate Tetrahydrate, P.A.

ACC# 96308

Section 1 - Chemical Product and Company Identification

MSDS Name: Nickel (II) Acetate Tetrahydrate, P.A.

Catalog Numbers: AC223140050, AC223145000

Synonyms: Acetic Acid Nickel Salt Tetrahydrate; Nickel Acetate Tetrahydrate.

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
6018-89-9	Nickel (II) Acetate Tetrahydrate	100.0	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: green solid.

Warning! Harmful if swallowed. Causes eye and skin irritation. May cause allergic respiratory and skin reaction. May cause respiratory tract irritation. Potential cancer hazard. May cause cancer based on animal studies.

Target Organs: Respiratory system, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May cause dermatitis. Causes "nickel itch" which is a dermatitis resulting from sensitization to nickel, which is characterized by skin eruptions, followed by discrete ulcers that may discharge and become crusted, or by eczema.

Ingestion: Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: Causes respiratory tract irritation. May cause allergic respiratory reaction. In rare instances, exposure may cause sensitization, resulting in inflammation of the mucous membranes and in eczematous eruptions.

Chronic: May cause respiratory tract cancer. May cause cancer according to animal studies. Symptoms of overexposure to nickel can cause sensitization, dermatitis, allergic asthma and pneumonitis.

Section 4 - First Aid Measures

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

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion: Do not induce vomiting. 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. Do NOT use mouth-to-mouth resuscitation.

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. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

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

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. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

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

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
Nickel (II) Acetate Tetrahydrate	none listed	0.015 mg/m ³ TWA (as Ni excluding Nickel carbonyl) (listed under Nickel compounds).10 mg/m ³ IDLH (as Ni except Nickel carbonyl) (listed under Nickel compounds).	1 mg/m ³ TWA (as Ni) (listed under Nickel soluble compounds).

OSHA Vacated PELs: Nickel (II) Acetate Tetrahydrate: 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 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: Solid

Appearance: green

Odor: acetic odor - weak odor

pH: Not available.

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Evaporation Rate:Not applicable.

Viscosity: Not applicable.

Boiling Point: Not available.

Freezing/Melting Point:482 deg F

Decomposition Temperature:Not available.

Solubility: 27% @ 0 C

Specific Gravity/Density:1.744

Molecular Formula:NiC₄H₆O₄.4H₂O

Molecular Weight:248.7832

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic gases, carbon dioxide, nickel oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 6018-89-9: QR6126000

LD50/LC50:

CAS# 6018-89-9:

Oral, mouse: LD50 = 410 mg/kg;

Oral, rat: LD50 = 350 mg/kg;

Carcinogenicity:

CAS# 6018-89-9:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 5/7/04 (listed as Nickel compounds).
- **NTP:** Known carcinogen (listed as Nickel compounds).
- **IARC:** Group 1 carcinogen (listed as Nickel compounds).

Epidemiology: An increased incidence of lung and nasal cavity cancers has been noted among women in nickel smelters and refineries. Epidemiological studies have shown an increased incidence of cancers among nickel refinery workers. IARC Group 2B: Proven animal carcinogenic substance of potential relevance to humans. IARC Group 2B: No data available on human carcinogenicity, however sufficient evidence of carcinogenicity in animals.

Teratogenicity: No information found

Reproductive Effects: No information found

Mutagenicity: No information found

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.

Environmental: No information reported.

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:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 6018-89-9 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 is on the inventory (40CFR720.3(u)(2)).

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.

SARA Codes

CAS # 6018-89-9: immediate, delayed.

Section 313

This material contains Nickel (II) Acetate Tetrahydrate (listed as Nickel compounds), 100.0%, (CAS# 6018-89-9) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

CAS# 6018-89-9 (listed as Nickel 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:

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. CAS# 6018-89-9 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# 6018-89-9 can be found on the following state right to know lists: California, (listed as Nickel compounds), Pennsylvania, (listed as Nickel compounds), Minnesota, (listed as Nickel soluble compounds).

California Prop 65

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Nickel (II) Acetate Tetrahydrate, listed as 'Nickel compounds', a chemical known to the state of California to cause cancer.

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.

Safety Phrases:

S 22 Do not breathe dust.

WGK (Water Danger/Protection)

CAS# 6018-89-9: No information available.

Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL 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# 6018-89-9 (listed as Nickel soluble compounds) is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 12/17/1997

Revision #8 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.