

ACROS ORGANICS

Material Safety Data Sheet

Creation Date 23-Dec-2009

Revision Date 23-Dec-2009

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	Nickel(II) nitrate hexahydrate	
Cat No.	AC223150000; AC223150025; AC223150050; AC223155000	
Synonyms	Nickelous nitrate hexahydrate	
Recommended Use	Laboratory chemicals	
Company Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	Entity / Business Name Acros Organics One Reagent Lane Fair Lawn, NJ 07410	Emergency Telephone Number 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

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Cancer hazard. May cause cancer by inhalation. Oxidizer: Contact with combustible/organic material may cause fire. May cause harm to the unborn child. Harmful by inhalation and if swallowed. Risk of serious damage to eyes. Irritating to skin. May cause irritation of respiratory tract. May cause allergic respiratory and skin reaction. Possible risks of irreversible effects. Danger of serious damage to health by prolonged exposure. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Appearance Blue green

Physical State Solid

Odor odorless

Target Organs

Respiratory system, Eyes, Skin

Potential Health Effects**Acute Effects****Principle Routes of Exposure**

Eyes	Risk of serious damage to eyes.
Skin	Irritating to skin. May produce an allergic reaction. May be harmful in contact with skin.
Inhalation	Harmful by inhalation. May cause allergic respiratory reaction. May cause irritation of respiratory tract.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

May cause cancer. May cause harm to the unborn child. Possible risks of irreversible effects. Danger of serious damage to health by prolonged exposure. Repeated contact may cause allergic reactions in very susceptible persons.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Nickel(II) nitrate, hexahydrate (1:2:6)	13478-00-7	>95
Nickel nitrate (2+ salt)	13138-45-9	-

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	No information available.
Method	No information available.
Autoignition Temperature	No information available.
Explosion Limits	
Upper	No data available
Lower	No data available
Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products No information available.

Sensitivity to mechanical impact No information available.

Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical

Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA **Health** 3 **Flammability** 1 **Instability** 2 **Physical hazards** OX

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep away from clothing and other combustible materials. Avoid dust formation.

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe vapors/dust. Do not ingest.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Nickel(II) nitrate, hexahydrate (1:2:6)	TWA: 0.1 mg/m ³		

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Blue green
Odor	odorless
Odor Threshold	No information available.
pH	5 50g/L (20°C)
Vapor Pressure	negligible
Vapor Density	10.0
Viscosity	No information available.
Boiling Point/Range	137°C / 278.6°F
Melting Point/Range	56.7°C / 134.1°F
Decomposition temperature °C	137
Flash Point	No information available.
Evaporation Rate	No information available.
Specific Gravity	No information available.
Solubility	Soluble in water
log Pow	No data available
Molecular Weight	290.8
Molecular Formula	N2 Ni O6 . 6 H2 O

10. STABILITY AND REACTIVITY

Stability	Oxidizer: Contact with combustible/organic material may cause fire.
Conditions to Avoid	Incompatible products. Excess heat. Combustible material. Avoid dust formation.
Incompatible Materials	Strong oxidizing agents, Organic materials, Powdered metals, Acids, Strong reducing agents
Hazardous Decomposition Products	nitric acid
Hazardous Polymerization	No information available.
Hazardous Reactions .	None under normal processing..

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nickel(II) nitrate, hexahydrate (1:2:6)	1620 mg/kg (Rat)	Not listed	Not listed

Irritation Irritating to eyes and skin

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity May cause cancer by inhalation. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Nickel(II) nitrate, hexahydrate (1:2:6)	Not listed	Group 1	Not listed	X	Not listed

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Sensitization May cause sensitization by inhalation and skin contact

Mutagenic Effects Possible risk of irreversible effects

Reproductive Effects May cause harm to the unborn child.

Developmental Effects No information available.

Teratogenicity No information available.

Other Adverse Effects See actual entry in RTECS for complete information.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Do not empty into drains. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available

Mobility No information available

13. DISPOSAL CONSIDERATIONS

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. TRANSPORT INFORMATION

DOT

UN-No UN2725
Proper Shipping Name NICKEL NITRATE
Hazard Class 5.1
Packing Group III

TDG

UN-No UN2725
Proper Shipping Name NICKEL NITRATE
Hazard Class 5.1
Packing Group III

IATA

UN-No 2725
Proper Shipping Name NICKEL NITRATE
Hazard Class 5.1
Packing Group III

IMDG/IMO

UN-No 2725
Proper Shipping Name NICKEL NITRATE
Hazard Class 5.1
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Nickel(II) nitrate, hexahydrate (1:2:6)	-	-	-	-	-		X	X	X	X	-
Nickel nitrate (2+ salt)	X	X	-	236-068-5	-		X	X	X	X	KE-25844 X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
 N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
 P - Indicates a commenced PMN substance
 R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
 S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
 T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
 XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).
 Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
 Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313
 Not applicable

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
 Not applicable

Clean Air Act
 Not applicable

OSHA
 Not applicable

CERCLA
 Not Applicable

California Proposition 65
 This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Nickel(II) nitrate, hexahydrate (1:2:6)	-	X	-	-	-
Nickel nitrate (2+ salt)	X	X	X	-	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

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

WHMIS Hazard Class

C Oxidizing materials

D2A Very toxic materials

**16. OTHER INFORMATION**

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Tel: (412) 490-8929

Creation Date 23-Dec-2009

Print Date 23-Dec-2009

Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS