

# Material Safety Data Sheet

## Nickel Monoxide, Peagent (Powder), 97% (titr.)

ACC# 01098

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Nickel Monoxide, Peagent (Powder), 97% (titr.)

**Catalog Numbers:** AC415580000, AC415585000

**Synonyms:** Black nickel oxide; Nickel oxide; Nickel monoxide; Mononickel oxide; Nickelous oxide.

**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
1313-99-1	NICKEL(II) OXIDE	97	215-215-7

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

**Appearance:** khaki solid. **Warning!** May cause allergic skin reaction. May cause cancer in humans. Causes eye and skin irritation. May cause respiratory tract irritation.

**Target Organs:** Respiratory system, skin.

#### Potential Health Effects

**Eye:** Causes eye irritation.

**Skin:** Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. May cause dermatitis.

**Ingestion:** Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** Causes respiratory tract irritation. May cause allergic respiratory reaction.

**Chronic:** Repeated inhalation is associated with nasal and nasopharyngeal cancer.

### 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 immediately.

**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.

**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 a metal chelator should be determined only 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

**Extinguishing Media:** Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**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:** 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. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Wash clothing before reuse. Do not breathe dust. Use only with adequate ventilation.

**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:** Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
NICKEL(II) OXIDE	none listed	none listed	none listed

**OSHA Vacated PELs:** NICKEL(II) OXIDE: 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 minimize contact with skin.

**Respirators:** Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

## Section 9 - Physical and Chemical Properties

**Physical State:** Solid

**Appearance:** khaki

**Odor:** odorless

**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:**1684 deg C

**Decomposition Temperature:**Not available.

**Solubility:** insoluble in water.

**Specific Gravity/Density:**4.8-6.8

**Molecular Formula:**NiO

**Molecular Weight:**74.6894

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Dust generation.

**Incompatibilities with Other Materials:** Fluorine, hydrogen sulfide, barium oxide and air.

**Hazardous Decomposition Products:** Irritating and toxic gases, nickel oxide, nickel, metallic oxides.

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

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 1313-99-1: QR8400000; QR8430000

### LD50/LC50:

Not available.

### Carcinogenicity:

CAS# 1313-99-1:

**California:** carcinogen, initial date 10/1/89

**NTP:** Known carcinogen (listed as Nickel compounds).

**IARC:** Group 1 carcinogen (listed as Nickel compounds).

**Epidemiology:** No information available.

**Teratogenicity:** No information available.

**Reproductive Effects:** No information available.

**Neurotoxicity:** No information available.

**Mutagenicity:** No information available.

**Other Studies:** None.

## 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	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	TOXIC SOLID, INORGANIC, N.O.S.				No information available.
<b>Hazard Class:</b>	6.1				
<b>UN Number:</b>	UN3288				
<b>Packing Group:</b>	II				

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 1313-99-1 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.

#### SARA

#### 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 # 1313-99-1: acute, chronic.

#### Section 313

This material contains NICKEL(II) OXIDE (listed as Nickel compounds), 97%, (CAS# 1313-99-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

#### 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# 1313-99-1 can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts.

**The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:** WARNING: This product contains NICKEL(II) OXIDE, 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 43 May cause sensitization by skin contact.

R 49 May cause cancer by inhalation.

R 53 May cause long-term adverse effects in the aquatic environment.

#### Safety Phrases:

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

S 53 Avoid exposure - obtain special instructions before use.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**WGK (Water Danger/Protection)**

CAS# 1313-99-1: 3

**Canada - DSL/NDSL**

CAS# 1313-99-1 is listed on Canada's DSL List.

**Canada - WHMIS**

This product does not have a WHMIS classification.

**Canadian Ingredient Disclosure List**

CAS# 1313-99-1 is listed on the Canadian Ingredient Disclosure List.

**Exposure Limits**

CAS# 1313-99-1: OEL-ARAB Republic of Egypt:TWA 0.1 mg(Ni)/m<sup>3</sup> OEL-AUSTRALIA:TWA 1 mg(Ni)/m<sup>3</sup> OEL-BELGIUM:TWA 1 mg(Ni)/m<sup>3</sup> (insoluble compounds) OEL-BELGIUM:TWA 1 mg(Ni)/m<sup>3</sup> OEL-CZECHOSLOVAKIA:TWA 0.05 mg(Ni)/m<sup>3</sup>;STEL 0.25 mg(Ni)/m<sup>3</sup> OEL-DENMARK:TWA 0.05 mg(Ni)/m<sup>3</sup>;Carcinogen OEL-DENMARK:TWA 1 mg(Ni)/m<sup>3</sup> (insoluble compounds) OEL-FINLAND:TWA 0.1 mg(Ni)/m<sup>3</sup>;Carcinogen OEL-FINLAND:TWA 0.1 mg(Ni)/m<sup>3</sup>;Skin;CAR (insoluble compounds) OEL-FRANCE:TWA 1 mg(Ni)/m<sup>3</sup> OEL-GERMANY;Carcinogen OEL-HUNGARY:STEL 0.005 mg(Ni)/m<sup>3</sup>;CAR (insoluble compounds) OEL-HUNGARY:STEL 0.005 mg(Ni)/m<sup>3</sup>;Carcinogen OEL-JAPAN:TWA 1 mg(Ni)/m<sup>3</sup>;Carcinogen OEL-THE NETHERLANDS:TWA 0.1 mg(Ni)/m<sup>3</sup> OEL-THE NETHERLANDS:TWA 1 mg(Ni)/m<sup>3</sup> (insoluble compounds) OEL-THE PHILIPPINES:TWA 1 mg(Ni)/m<sup>3</sup> OEL-RUSSIA:STEL 0.05 mg(Ni)/m<sup>3</sup> OEL-SWEDEN:TWA 0.1 mg/m<sup>3</sup>;Carcinogen OEL-SWEDEN:TWA 0.5 mg(Ni)/m<sup>3</sup> OEL-SWITZERLAND:TWA 0.5 mg(Ni)/m<sup>3</sup> (insoluble compounds) OEL-SWITZERLAND:TWA 0.5 mg(Ni)/m<sup>3</sup>;Carcinogen JAN9 OEL-SWITZERLAND:TWA 0.5 mg/m<sup>3</sup>;Carcinogen OEL-THAILAND:TWA 1 mg(Ni)/m<sup>3</sup> OEL-UNITED KINGDOM:TWA 0.5 mg(Ni)/m<sup>3</sup> (insoluble compounds) OEL-UNITED KINGDOM:TWA 1 mg(Ni)/m<sup>3</sup> OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SIN

## Section 16 - Additional Information

**MSDS Creation Date:** 2/23/1998

**Revision #2 Date:** 8/02/2002

*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.*