

Material Name: Niacinamide FG 99%  
Material Code: 0430528  
MSDS Number .: m-011706.asc

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Approved: 06/09/95

Roche Vitamins Inc.  
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Chemtrec: (800)-424-9300  
Information: (800)-526-0189

## MATERIAL SAFETY DATA SHEET

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### SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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Material Name .....: Niacinamide FG 99%  
Inventory Code .....: 0430528  
RO # .....: 01-3854  
CAS Number .....: 98-92-0  
Synonyms .....: nicotinamide  
                          Vitamin B3  
                          3-pyridinecarboxamide  
TSCA Status .....: On TSCA Inventory.  
Chemical Family ....: Vitamin B3

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### SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

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Ingredient Name	CAS Number	Concentration %
Niacinamide	98-92-0	>98.00

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### SECTION 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW

Physical State .....: Powder.  
Color .....: White  
Odor .....: Practically odorless

Severe dust explosion hazard

#### POTENTIAL HEALTH EFFECTS

Relevant Routes of  
Exposure .....: Inhalation, Skin Contact, Eye Contact, Ingestion  
Target Organs .....: Gastrointestinal System, Hepatic System.

#### Acute Effects

General . : May cause allergic reactions. May cause  
                          gastrointestinal effects such as nausea, vomiting,  
                          diarrhea, constipation, cramps, and loss of appetite  
Skin .....: May cause skin irritation.  
Eye .....: May cause eye irritation.

#### Chronic Effects

General ..... May cause liver necrosis (destruction of liver cells)

Carcinogenicity . : Not listed by NTP, IARC, or OSHA.

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### SECTION 3. HAZARDS IDENTIFICATION (Continued. . .)

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#### Conditions

Aggravated .....: Diabetes. Liver conditions and/or impaired liver function. High Blood Pressure. Gout Ulcers.

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### SECTION 4. FIRST AID MEASURES

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Inhalation .....: Remove to fresh air. If discomfort occurs or persists, get medical attention.  
Skin Contact .....: Remove contaminated clothing and shoes. Wash skin with soap and plenty of water. If irritation occurs or persists, get medical attention. Wash clothing and shoes before reuse.  
Eye Contact .....: Immediately flush eyes with plenty of water. If irritation occurs or persists, get medical attention.  
Ingestion .....: If large quantities of this material are swallowed, get medical attention immediately. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

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### SECTION 5. FIRE FIGHTING MEASURES

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Flash Point .....: 480 C  
Extinguishing Media : Water, Carbon Dioxide, Dry Chemical, Foam.  
Unusual Fire and Explosion Hazards ...: Severe dust explosion hazard. Toxic emissions may be given off in a fire. See Decomposition Products in Section 10. Stability and Reactivity.  
Fire Fighting Instructions : Wear NIOSH/MSHA approved positive pressure, self contained breathing apparatus and full protective turn out gear. Evacuate personnel to an area upwind to avoid smoke and vapors. Use caution in approaching fire. Use water to keep fire exposed containers cool.

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### SECTION 6. ACCIDENTAL RELEASE MEASURES

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Spill Clean Up Procedures .....: Shut off the source of the spill or leak if it is safe to do so. Eliminate possible ignition sources. Scoop or shovel spilled material into a suitable labeled open head drum. Secure the drum cover and move the container to a safe holding area. Clean spill area thoroughly.  
Treatment and Disposal .....: Dispose of in accordance with recommendations in Section 13 Disposal Considerations.

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SECTION 6. ACCIDENTAL RELEASE MEASURES (Continued. . .

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Reporting

Requirements .....: The United States Environmental Protection Agency (USEPA) has not established a Reportable Quantity (RQ) for releases of this material. In New Jersey, report all releases which are likely to endanger the public health, harm the environment or cause a complaint to the NJDEPE Hotline (1-609-292-5560) and to local officials. State and local regulations vary and may impose additional reporting requirements.

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SECTION 7. HANDLING AND STORAGE

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Storage Temperature

(min/max) .....: < 25 deg C

Shelf Life .....: 12 months

Special Sensitivity : Do not heat above 200 degrees C.

Handling & Storage

Precautions .....: Do not generate dust or expose to ignition sources. Ground and bond all transfer equipment. Milling/mixing/drying should be performed in devices equipped with explosion relief or suppression systems or under inert conditions. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing dust. When handling, use proper personal protective equipment specified in section 8. Wash thoroughly after handling. Keep container tightly closed when not in use. Store in a cool, well ventilated area.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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ENGINEERING CONTROLS

Ventilation .....: General room ventilation is adequate unless the process generates airborne dust or fume.

PERSONAL PROTECTION

Respirator Type(s) ..: Half Face, Nontoxic Dust/Mist Filter.

Conditions for Use ..: Under normal conditions of use, respiratory protection is not expected to be necessary. Respiratory protection is recommended under excessively dusty conditions. OSHA considers effective engineering controls to be the primary means to control worker exposure. Respiratory protection should not substitute for feasible engineering controls. Whenever respiratory protection is used, a complete respirator program should be developed in accordance with OSHA Subpart I (29CFR1910.134) requirements.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued. . )

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Glove Materials . . . . : Any plastic or rubber glove.  
Conditions for Use . . : Gloves are recommended if there is a potential for skin contact.  
Skin Protection . . . . : Use protective clothing (lab coats, disposable coveralls, etc.) in both production and laboratory areas.  
Eye Protection . . . . . : Safety Glasses Required, Safety Goggles Recommended.

OTHER CONTROL MEASURES

Additional  
Protective Measures : Provide safety showers and eyewash stations in the work area. Prevent the accumulation of dust in the work area by thorough periodic cleaning of the area.

EXPOSURE LIMITS

Niacinamide

Roche IOEL: 5.00 mg/m3 8 Hr Time Weighted Average.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical State . . . . . : Powder.  
Color . . . . . : White  
Odor . . . . . : Practically odorless  
Molecular Weight . . . : 122.13  
Chemical Formula . . . : C<sub>6</sub>H<sub>5</sub>N<sub>2</sub>O  
Pure/Mixture . . . . . : Pure.  
pH . . . . . : 6.0-7.5 at 10% aqueous solution.  
Melting Point . . . . . : 128-131 C  
H<sub>2</sub>O Solubility . . . . . : 473 g/l; Appreciably Soluble (>10% by weight).  
Solubility - Other . . : 1 g/l in diethyl ether, 77 g/l in ethanol, 16 g/l in n-octanol, soluble in glycerol  
Bulk Density . . . . . : 0.5-0.7 kg/l

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SECTION 10. STABILITY AND REACTIVITY

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Stability . . . . . : Normally stable even under fire exposure conditions and not water reactive  
Conditions to Avoid : Temperatures >200C  
Dust Accumulation  
Airborne Dust  
Sources of Ignition  
Incompatibility -  
Materials to Avoid . . : Bases, Strong acids.  
Decomposition  
Products . . . . . : Carbon dioxide, carbon monoxide, ammonia, oxides of nitrogen  
Polymerization . . . . . : No  
Conditions of  
Polymerization . . . . . : Will not occur.

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SECTION 11. TOXICOLOGICAL INFORMATION

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Niacinamide

Acute Oral, Single Dose, Rat: 3760 mg/kg

Summary: Acute oral LD50 (rat) is 3760 mg/kg body weight at 10 days which classifies this material as slightly toxic orally under the study conditions utilized.

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SECTION 12. ECOLOGICAL INFORMATION

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Niacinamide

Environmental Concentration Lethal to 50%, 48 Hour, Daphnia: >1000 mg/L  
Summary: The EC50 (daphnia) at 48 hours is greater than 1000 mg/L.

Concentration lethal to 50% of the organisms, Fish: >1000 mg/L  
Summary: The LC50 (guppy) at 96 hours is greater than 1000 mg/L.

Effective Biological Conc. Reduces Growth 50%, Algae: >1000 mg/L  
Summary: The EbC50 (algae) at 72 hours is greater than 1000 mg/L

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SECTION 13. DISPOSAL CONSIDERATIONS

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Disposal

Recommendations . . . .: This material is suitable for incineration. These recommendations are based on the product as shipped. Use, processing, alteration or contamination may affect these disposal recommendations. State, local or site restrictions affecting the available proper disposal options may vary.

RCRA Waste # . . . . .: Not regulated under RCRA

Empty Containers . . .: Empty containers must be triple rinsed prior to disposal, recycling, or reuse.

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SECTION 14. TRANSPORTATION INFORMATION

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Enforcement Agency .: US Dept. of Transportation  
Country/Community .: USA  
Proper Ship. Name .: Non-regulated

Enforcement Agency .: International Air Transport Association  
Transportation Mode : Air.  
Country/Community .: International  
Proper Ship. Name .: Non-regulated

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SECTION 15. REGULATORY INFORMATION

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Law/Regulation .....: Hazardous Chemical Reporting: Community Right-To-Know  
40CFR370  
Common Name .....: SARA Title III Section 312 - Hazardous Chemical  
Inventory  
Enforcement Agency ..: Environmental Protection Agency (EPA)  
Governing Authority : USA  
Criteria Met .....: Acute, Fire

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SECTION 16. OTHER INFORMATION

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Additional  
Information .....: NFPA RATING: These ratings are based on NFPA Code 704  
and are intended for use by emergency personnel to  
determine the immediate hazards of a material.  
....Health 1  
....Fire 3  
....Reactivity 0

APPROVAL INFORMATION

Preparer .....: Janet L. Kolodziey-Nykolyn  
Approver .....: Corporate Environmental & Safety Affairs  
Approval Date .....: 06/09/95  
Reason For Issue ...: Add global product code

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