

DATE: 08/14/93 ACCT: 888235-01  
 INDEX: 05912870140 CAT NO: BP876500 PO NBR: N/A

\*\*NICOTINAMIDE\*\*  
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## MATERIAL SAFETY DATA SHEET

FISHER SCIENTIFIC EMERGENCY NUMBER: (201) 796-7100  
 CHEMICAL DIVISION CHEMTREC ASSISTANCE: (800) 424-9300  
 1 REAGENT LANE  
 FAIR LAWN NJ 07410  
 (201) 796-7100

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## SUBSTANCE IDENTIFICATION

SUBSTANCE: \*\*NICOTINAMIDE\*\* CAS-NUMBER 98-92-0

TRADE NAMES/SYNONYMS:  
 3-PYRIDINECARBOXYAMIDE; AMINICOTIN; 3-CARBOAMOYLPIRIDINE; DELONIN AMIDE;  
 DIPEGYL; NIACINAMIDE; NICAMINA; NICOTILAMIDE; NICOTINE ACID AMIDE;  
 NICOTINIC ACID AMIDE; NICOTONIC AMIDE; NICOTYLAMIDE; VITAMIN B3; N002;  
 BP-876; C6H6N2O; ACC16230

CHEMICAL FAMILY:  
 PYRIDINE

AMIDE

MOLECULAR FORMULA: C6-H6-N2-O

MOLECULAR WEIGHT: 122.13

CERCLA RATINGS (SCALE 0-3): HEALTH=2 FIRE=1 REACTIVITY=0 PERSISTENCE=0  
 NFPA RATINGS (SCALE 0-4): HEALTH=U FIRE=1 REACTIVITY=0

## COMPONENTS AND CONTAMINANTS

COMPONENT: NICOTINAMIDE PERCENT: 100.0  
 CAS# 98-92-0

EXPOSURE LIMITS:  
 NO OCCUPATIONAL EXPOSURE LIMITS ESTABLISHED BY OSHA, ACGIH, OR NIOSH.

## PHYSICAL DATA

DESCRIPTION: NEARLY ODORLESS, WHITE CRYSTALLINE POWDER OR COLORLESS NEEDLES  
 WITH A BITTER TASTE. BOILING POINT: 302-320 F (150-160 C) @ 0.0005 MMHG  
 MELTING POINT: 266-270 F (130-132 C) SPECIFIC GRAVITY: 1.40  
 VAPOR PRESSURE: 0.0005 @ 150-160 C SOLUBILITY IN WATER: SOLUBLE  
 SOLVENT SOLUBILITY: SOLUBLE IN ALCOHOL, GLYCEROL.

## FIRE AND EXPLOSION DATA

FIRE AND EXPLOSION HAZARD:  
 SLIGHT FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME.

DUST-AIR MIXTURES MAY IGNITE OR EXPLODE.

FLASH POINT: 689 F ( 365 C)

FIREFIGHTING MEDIA:  
 DRY CHEMICAL, CARBON DIOXIDE, WATER SPRAY OR REGULAR FOAM  
 (1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FOR LARGER FIRES, USE WATER SPRAY, FOG OR REGULAR FOAM  
 (1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5).

FIREFIGHTING:  
 MOVE CONTAINER FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK. DO NOT SCATTER  
 SPILLED MATERIAL WITH HIGH-PRESSURE WATER STREAMS. DIKE FIRE-CONTROL WATER FOR  
 LATER DISPOSAL (1990 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.5, GUIDE  
 PAGE 31).

USE AGENTS SUITABLE FOR TYPE OF SURROUNDING FIRE. AVOID BREATHING HAZARDOUS  
 VAPORS, KEEP UPWIND.

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## TOXICITY

NICOTINAMIDE:  
 TOXICITY DATA: 3500 MG/KG ORAL-RAT LD50; 2500 MG/KG ORAL-MOUSE LD50;  
 1680 MG/KG SUBCUTANEOUS-RAT LD50; 2 GM/KG SUBCUTANEOUS-MOUSE LD50;  
 2050 MG/KG INTRAPERITONEAL-MOUSE LD50; 2500 MG/KG UNREPORTED-MAMMAL LD50;  
 MUTAGENIC DATA (RTECS):  
 CARCINOGEN STATUS: NONE  
 ACUTE TOXICITY LEVEL: MODERATELY TOXIC BY INGESTION.  
 TARGET EFFECTS: NO DATA AVAILABLE.

## HEALTH EFFECTS AND FIRST AID

INHALATION:  
 NICOTINAMIDE:  
 ACUTE EXPOSURE- NO SPECIFIC DATA AVAILABLE. EXCESSIVE INHALATION MAY  
 RESULT IN RESPIRATORY IRRITATION.  
 CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- REMOVE FROM EXPOSURE AREA TO FRESH AIR IMMEDIATELY. IF BREATHING  
 HAS STOPPED, PERFORM ARTIFICIAL RESPIRATION. KEEP PERSON WARM AND AT REST.  
 TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT:  
 NICOTINAMIDE:  
 ACUTE EXPOSURE- NO SPECIFIC DATA AVAILABLE. EXCESSIVE CONTACT MAY CAUSE  
 MINOR SKIN IRRITATION.  
 CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- REMOVE CONTAMINATED CLOTHING AND SHOES IMMEDIATELY. WASH AFFECTED  
 AREA WITH SOAP OR MILD DETERGENT AND LARGE AMOUNTS OF WATER UNTIL NO  
 EVIDENCE OF CHEMICAL REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL  
 ATTENTION IMMEDIATELY.

EYE CONTACT:  
 NICOTINAMIDE:  
 ACUTE EXPOSURE- NO SPECIFIC DATA AVAILABLE. EXCESSIVE EXPOSURE MAY CAUSE  
 MINOR EYE IRRITATION.  
 CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- WASH EYES IMMEDIATELY WITH LARGE AMOUNTS OF WATER OR NORMAL SALINE,  
 OCCASIONALLY LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF CHEMICAL  
 REMAINS (APPROXIMATELY 15-20 MINUTES). GET MEDICAL ATTENTION IMMEDIATELY.

INGESTION:  
 NICOTINAMIDE:  
 ACUTE EXPOSURE- NO DATA AVAILABLE.  
 CHRONIC EXPOSURE- NO DATA AVAILABLE.

FIRST AID- TREAT SYMPTOMATICALLY AND SUPPORTIVELY. GET MEDICAL ATTENTION  
 IMMEDIATELY. IF VOMITING OCCURS, KEEP HEAD LOWER THAN HIPS TO PREVENT  
 ASPIRATION.

ANTIDOTE:  
 NO SPECIFIC ANTIDOTE. TREAT SYMPTOMATICALLY AND SUPPORTIVELY.

## REACTIVITY

REACTIVITY:  
 STABLE UNDER NORMAL TEMPERATURES AND PRESSURES.

INCOMPATIBILITIES:  
 NICOTINAMIDE:  
 OXIDIZERS (STRONG): FIRE AND EXPLOSION HAZARD.

DECOMPOSITION:  
 THERMAL DECOMPOSITION PRODUCTS MAY INCLUDE CORROSIVE FUMES OF AMMONIA, AND  
 TOXIC OXIDES OF NITROGEN AND CARBON.

POLYMERIZATION:  
 HAZARDOUS POLYMERIZATION HAS NOT BEEN REPORTED TO OCCUR UNDER NORMAL  
 TEMPERATURES AND PRESSURES.

## STORAGE AND DISPOSAL

OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING  
 OF THIS SUBSTANCE.

\*\*STORAGE\*\*

STORE AWAY FROM INCOMPATIBLE SUBSTANCES.

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 CONDITIONS TO AVOID

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MAY BURN BUT DOES NOT IGNITE READILY. AVOID CONTACT WITH STRONG OXIDIZERS, EXCESSIVE HEAT, SPARKS, OR OPEN FLAME.

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SPILL AND LEAK PROCEDURES

OCCUPATIONAL SPILL:  
SWEEP UP AND PLACE IN SUITABLE CLEAN, DRY CONTAINERS FOR RECLAMATION OR LATER DISPOSAL. DO NOT FLUSH SPILLED MATERIAL INTO SEWER. KEEP UNNECESSARY PEOPLE AWAY.

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PROTECTIVE EQUIPMENT

VENTILATION:  
PROVIDE LOCAL EXHAUST VENTILATION. VENTILATION EQUIPMENT MUST BE EXPLOSION PROOF.

RESPIRATOR:  
THE FOLLOWING RESPIRATORS ARE RECOMMENDED BASED ON INFORMATION FOUND IN THE PHYSICAL DATA, TOXICITY AND HEALTH EFFECTS SECTIONS. THEY ARE RANKED IN ORDER FROM MINIMUM TO MAXIMUM RESPIRATORY PROTECTION.  
THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN THE WORK PLACE. MUST BE BASED ON THE SPECIFIC OPERATION, MUST NOT EXCEED THE WORKING LIMITS OF THE RESPIRATOR AND MUST BE JOINTLY APPROVED BY THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH AND THE MINE SAFETY AND HEALTH ADMINISTRATION (NIOSH-MSHA).

ANY DUST AND MIST RESPIRATOR.

ANY AIR-PURIFYING RESPIRATOR WITH A HIGH-EFFICIENCY PARTICULATE FILTER.

ANY POWERED AIR-PURIFYING RESPIRATOR WITH A DUST AND MIST FILTER.

ANY POWERED AIR-PURIFYING RESPIRATOR WITH A HIGH-EFFICIENCY PARTICULATE FILTER.

ANY TYPE 'C' SUPPLIED-AIR RESPIRATOR OPERATED IN THE PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE OR CONTINUOUS-FLOW MODE.

ANY SELF-CONTAINED BREATHING APPARATUS.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

ANY SELF-CONTAINED BREATHING APPARATUS THAT HAS A FULL FACEPIECE AND IS OPERATED IN A PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE.

ANY SUPPLIED-AIR RESPIRATOR THAT HAS A FULL FACEPIECE AND IS OPERATED IN A PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE IN COMBINATION WITH AN AUXILIARY SELF-CONTAINED BREATHING APPARATUS OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE-PRESSURE MODE.

CLOTHING:  
EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE (IMPERVIOUS) CLOTHING AND EQUIPMENT TO PREVENT REPEATED OR PROLONGED SKIN CONTACT WITH THIS SUBSTANCE.

GLOVES:  
EMPLOYEE MUST WEAR APPROPRIATE PROTECTIVE GLOVES TO PREVENT CONTACT WITH THIS SUBSTANCE.

EYE PROTECTION:  
EMPLOYEE MUST WEAR SPLASH-PROOF OR DUST-RESISTANT SAFETY GOGGLES TO PREVENT EYE CONTACT WITH THIS SUBSTANCE.

EMERGENCY EYE WASH: WHERE THERE IS ANY POSSIBILITY THAT AN EMPLOYEE'S EYES MAY BE EXPOSED TO THIS SUBSTANCE, THE EMPLOYER SHOULD PROVIDE AN EYE WASH FOUNTAIN WITHIN THE IMMEDIATE WORK AREA FOR EMERGENCY USE.

AUTHORIZED - FISHER SCIENTIFIC, INC.  
CREATION DATE: 04/21/87 REVISION DATE: 03/24/93

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