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

N-Bromosuccinimide, 99%

\*\*\*\* SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION \*\*\*\*

MSDS Name: N-Bromosuccinimide, 99%

Catalog Numbers:

10745-0000, 10745-0010, 10745-0100, 10745-1000, 10745-5000

Synonyms:

NBS; 1-Bromo-2,5-pyrolidinedione

Company Identification (Europe): Acros Organics BVBA

Janssen Pharmaceuticalaan 3a

2440 Geel, Belgium

Company Identification (USA): Acros Organics

One Reagent Lane Fairlawn, NJ 07410

For information in North America, call: 800-ACROS-01
For information in Europe, call: 0032(0) 14575211

For emergencies in the US, call CHEMTREC: 800-424-9300 For emergencies in Europe, call: 0032(0) 14575299

\*\*\*\* SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS \*\*\*\*

+	CAS#	Chemical Name	\   % 	EINECS#	Haz Symbols	Risk Phrases	
	128-08-5	N-Bromosuccinimide	99%	204-877-2			

Hazard Symbols: XN

Risk Phrases: 22 36/37/38

## \*\*\*\* SECTION 3 - HAZARDS IDENTIFICATION \*\*\*\*

# EMERGENCY OVERVIEW

Harmful if swallowed. Irritating to eyes, respiratory system and skin.Light sensitive.Moisture sensitive.

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation. May be harmful if absorbed through the skin.

Ingestion:

Harmful if swallowed. May cause irritation of the digestive tract.

Inhalation:

Causes respiratory tract irritation. May cause abdominal pain, nausea, vomiting, and inflammation of the gums and mouth. May be harmful if inhaled

harmful if inhaled.

Chronic:

No information found.

# \*\*\*\* 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.

Ingestion:

Get medical aid. Wash mouth out with water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult,

give oxygen. Get medical aid.

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.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

\*\*\*\* 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. Avoid runoff into storm sewers and ditches which lead to waterways. Avoid generating dusty conditions.

\*\*\*\* SECTION 7 - HANDLING and STORAGE \*\*\*\*

Handling:

Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.

Storage:

Store in a cool, dry place. Store in a tightly closed container.

\*\*\*\* 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 ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear chemical goggles.

Skin:

Wear appropriate protective gloves to prevent skin

exposure.

Clothing:

Wear appropriate protective clothing to prevent skin

exposure.

Respirators:

Explosion Limits, upper:

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.

Not available.

\*\*\*\* SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES \*\*\*\*

Physical State: Crystalline powder
Color: white to light yellow
Odor: bromine-like - faint odor

pH:

Vapor Pressure:

Viscosity:

Not available.

Not available.

Not available.

Not available.

Freezing/Melting Point:

Autoignition Temperature:

Flash Point:

Explosion Limits, lower:

Not available.

Not available.

Not available.

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Decomposition Temperature: Not available.
Solubility in water:
                            14.7 g/l water (25•C)
Specific Gravity/Density:
Molecular Formula:
                            C4H4BrNO2
Molecular Weight:
                            177.99
                 **** SECTION 10 - STABILITY AND REACTIVITY ****
     Chemical Stability:
          Stable under normal temperatures and pressures.
     Conditions to Avoid:
          Incompatible materials, light, exposure to moist air or water.
     Incompatibilities with Other Materials:
          Strong oxidizing agents, strong acids, strong bases, hydrazine, iron,
          dibenzoyl peroxide, iron salts, aniline, alcohols, amines, ammonia.
     Hazardous Decomposition Products:
          Nitrogen oxides, carbon monoxide, carbon dioxide, hydrogen bromide.
     Hazardous Polymerization: Has not been reported.
                **** SECTION 11 - TOXICOLOGICAL INFORMATION ****
     RTECS#:
          CAS# 128-08-5 unlisted.
     LD50/LC50:
          Not available.
          Rtecs WN2275000:
Oral, rat: LD50 = 1.17 \text{ gm/kg}
     Carcinogenicity:
      N-Bromosuccinimide -
          Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
          See actual entry in RTECS for complete information.
                  **** SECTION 12 - ECOLOGICAL INFORMATION ****
     Other
          Avoid entering into waters or underground water.
                 **** SECTION 13 - DISPOSAL CONSIDERATIONS ****
Dispose of in a manner consistent with federal, state, and local regulations.
                  **** SECTION 14 - TRANSPORT INFORMATION ****
     IATA
          Shipping Name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.*
           Hazard Class: 8
              UN Number: 3261
          Packing Group: III
     IMO
          Shipping Name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
           Hazard Class: 8
              UN Number: 3261
          Packing Group: III
     RID/ADR
          Shipping Name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
           Hazard Class: 8
              UN Number: 3261
          Packing group: III
                  **** SECTION 15 - REGULATORY INFORMATION ****
 European/International Regulations
     European Labeling in Accordance with EC Directives
          Hazard Symbols: XN
          Risk Phrases:
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R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 128-08-5: 1

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

Canada

CAS# 128-08-5 is listed on Canada's DSL List.

CAS# 128-08-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

US FEDERAL

TSCA

CAS# 128-08-5 is listed on the TSCA inventory.

\*\*\*\* SECTION 16 - ADDITIONAL INFORMATION \*\*\*\*

MSDS Creation Date: 7/16/1996 Revision #2 Date: 9/19/2002

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 way shall the company 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 the company has been advised of the possibility of such damages.