

## SAFETY DATA SHEET

Creation Date 19-Jan-2015

Revision Date 02-Jun-2020

Revision Number 5

### 1. Identification

**Product Name** N-Bromosuccinimide

**Cat No. :** AC107450000; AC107450010; AC107450050; AC107450100;  
AC107451000; AC107455000

**CAS-No** 128-08-5

**Synonyms** 1-Bromo-2,5-pyrrolidinedione; NBS

**Recommended Use** Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

**Details of the supplier of the safety data sheet**

**Company**

Fisher Scientific Company  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

**Emergency Telephone Number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing solids	Category 3
Corrosive to metals	Category 1
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1

**Label Elements**

**Signal Word**

Warning

**Hazard Statements**

May intensify fire; oxidizer  
May be corrosive to metals

Causes skin irritation  
Causes serious eye irritation  
May cause an allergic skin reaction



### Precautionary Statements

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Contaminated work clothing should not be allowed out of the workplace  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
Keep/Store away from clothing/ other combustible materials  
Take any precaution to avoid mixing with combustibles  
Keep only in original container

#### Skin

IF ON SKIN: Wash with plenty of soap and water  
Take off contaminated clothing and wash before reuse  
If skin irritation or rash occurs: Get medical advice/attention

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

#### Fire

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

#### Spills

Absorb spillage to prevent material damage

#### Storage

Store in corrosive resistant polypropylene container with a resistant inliner

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Very toxic to aquatic life

## 3. Composition/Information on Ingredients

Component	CAS-No	Weight %
2,5-Pyrrolidinedione, 1-bromo-	128-08-5	>95

## 4. First-aid measures

#### General Advice

If symptoms persist, call a physician.

#### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

#### Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

#### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if

	symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Most important symptoms and effects</b>	May cause allergic skin reaction. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	180 °C / 356 °F
<b>Method -</b>	CC (closed cup)
<b>Autoignition Temperature</b>	Not applicable
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Oxidizing Properties</b>	Oxidizer
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

### Specific Hazards Arising from the Chemical

Corrosive material. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition. Do not allow run-off from fire-fighting to enter drains or water courses. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

### Hazardous Combustion Products

Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrogen halides.

### 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.

### NFPA

**Health**  
3

**Flammability**  
1

**Instability**  
2

**Physical hazards**  
OX

## 6. Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.
<b>Environmental Precautions</b>	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods for Containment and Clean Up</b>	Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

## 7. Handling and storage

<b>Handling</b>	Wear personal protective equipment/face protection. Avoid dust formation. Do not get in
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eyes, on skin, or on clothing. Ensure adequate ventilation. Avoid ingestion and inhalation. Keep away from clothing and other combustible materials.

**Storage**

Protect from direct sunlight. Store under an inert atmosphere. Keep refrigerated. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures**

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

**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.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

Physical State	Powder Solid
Appearance	Off-white
Odor	pungent
Odor Threshold	No information available
pH	No information available
Melting Point/Range	175 - 178 °C / 347 - 352.4 °F
Boiling Point/Range	No information available
Flash Point	180 °C / 356 °F
Method -	CC (closed cup)
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	14.8 hPa @ 20 °C
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	1.1 g/cm <sup>3</sup>
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	Not applicable
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C <sub>4</sub> H <sub>4</sub> Br N O <sub>2</sub>
Molecular Weight	177.99

## 10. Stability and reactivity

<b>Reactive Hazard</b>	Yes
<b>Stability</b>	Moisture sensitive. Light sensitive. Oxidizer: Contact with combustible/organic material may cause fire.
<b>Conditions to Avoid</b>	Avoid dust formation. Incompatible products. Excess heat. Exposure to light. Exposure to moisture. Combustible material.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong bases, Strong acids, Alcohols, Amines, Ammonia, Metals, Strong reducing agents, Combustible material
<b>Hazardous Decomposition Products</b>	Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Hydrogen halides
<b>Hazardous Polymerization</b>	No information available.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Acute Toxicity

#### Product Information

#### Component Information

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Irritation</b>	Irritating to eyes and skin
<b>Sensitization</b>	May cause sensitization by skin contact
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
2,5-Pyrrolidinedione, 1-bromo-	128-08-5	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects** Not mutagenic in AMES Test

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

**STOT - single exposure** None known

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** The toxicological properties have not been fully investigated.

## 12. Ecological information

### Ecotoxicity

Very toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its water solubility.

### 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 UN3084  
 Proper Shipping Name CORROSIVE SOLIDS, OXIDIZING, N.O.S.  
 Technical Name 2,5-Pyrrolidinedione, 1-bromo-  
 Hazard Class 8  
 Subsidiary Hazard Class 5.1  
 Packing Group II

#### TDG

UN-No UN3084  
 Proper Shipping Name Corrosive solid, oxidizing, n.o.s.  
 Hazard Class 8  
 Subsidiary Hazard Class 5.1  
 Packing Group II

#### IATA

UN-No UN3084  
 Proper Shipping Name Corrosive solid, oxidizing, n.o.s.  
 Hazard Class 8  
 Subsidiary Hazard Class 5.1  
 Packing Group II

#### IMDG/IMO

UN-No UN3084  
 Proper Shipping Name Corrosive solid, oxidizing, n.o.s.  
 Hazard Class 8  
 Subsidiary Hazard Class 5.1  
 Packing Group II

### 15. Regulatory information

#### United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
2,5-Pyrrolidinedione, 1-bromo-	128-08-5	X	ACTIVE	-

#### Legend:

**TSCA** - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA 12(b)** - Notices of Export Not applicable

#### International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
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2,5-Pyrrolidinedione, 1-bromo-	128-08-5	X	-	204-877-2	X	X	X	X	KE-03714
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**U.S. Federal Regulations**

<b>SARA 313</b>	Not applicable
<b>SARA 311/312 Hazard Categories</b>	See section 2 for more information
<b>CWA (Clean Water Act)</b>	Not applicable
<b>Clean Air Act</b>	Not applicable
<b>OSHA - Occupational Safety and Health Administration</b>	Not applicable
<b>CERCLA</b>	Not applicable
<b>California Proposition 65</b>	This product does not contain any Proposition 65 chemicals.
<b>U.S. State Right-to-Know Regulations</b>	Not applicable
<b>U.S. Department of Transportation</b>	
Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N
<b>U.S. Department of Homeland Security</b>	This product does not contain any DHS chemicals.

**Other International Regulations**

<b>Mexico - Grade</b>	No information available
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**16. Other information**

<b>Prepared By</b>	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
<b>Creation Date</b>	19-Jan-2015
<b>Revision Date</b>	02-Jun-2020
<b>Print Date</b>	02-Jun-2020
<b>Revision Summary</b>	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**