

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material name** OXYNATE 7, 40 LBS  
**Version #** 01  
**Issue date** 12-13-2013  
**CAS #** Mixture  
**Product code** 082-007-140  
**Manufacturer information** BROWNELLS, INC.  
200 South Front Street  
Montezuma, Iowa 50171 United States  
www.brownells.com  
(641) 623-5401  
24 hour Emergency Number, (352)-323-3500

## 2. Hazards Identification

**Emergency overview** DANGER

Corrosive. Causes skin and eye burns. Harmful if swallowed. Irritating to respiratory system. Prolonged exposure may cause chronic effects.

**OSHA regulatory status** This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

**Potential health effects**

**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.

**Eyes** Causes eye burns. Risk of serious damage to eyes. Do not get this material in contact with eyes.

**Skin** Causes skin burns. Do not get this material in contact with skin.

**Inhalation** Causes burns. Irritating to respiratory system. Do not breathe dust/fume/gas/mist/vapors/spray.

**Ingestion** Harmful if swallowed. Components of the product may be absorbed into the body by ingestion. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. Do not ingest.

**Target organs** Eyes. Skin.

**Potential environmental effects** Components of this product are hazardous to aquatic life. May cause long-term adverse effects in the environment.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
SODIUM HYDROXIDE	1310-73-2	40 - 60
SODIUM NITRATE	7631-99-4	10 - 20
SODIUM NITRITE	7632-00-0	10 - 20

## 4. First Aid Measures

**First aid procedures**

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

**Skin contact** Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.

**Inhalation** Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

## Ingestion

Have victim rinse mouth thoroughly with water. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If material is ingested, immediately contact a poison control center.

## Notes to physician

In case of shortness of breath, give oxygen. Keep victim warm.

## General advice

Immediate medical attention is required. In case of shortness of breath, give oxygen. Keep victim warm. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

### Flammable properties

The product is not flammable.

### Extinguishing media

#### Suitable extinguishing media

Water.

### Protection of firefighters

#### Specific hazards arising from the chemical

May intensify fire; oxidizer. Product is highly caustic; If involved with fire during firefighting, will create highly alkaline mixture.

### Fire fighting equipment/instructions

Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

### Hazardous combustion products

Contact with acid generates heat and toxic fumes.

## 6. Accidental Release Measures

### Personal precautions

Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering them. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

### Methods for containment

Prevent entry into waterways, sewers, basements or confined areas.

### Methods for cleaning up

Should not be released into the environment. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Following product recovery, flush area with water.

## 7. Handling and Storage

### Handling

Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get this material on clothing. Use only with adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment. Handle and open container with care.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep this material away from food, drink and animal feed. Keep out of the reach of children. Use care in handling/storage.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

##### Components

##### Type

##### Value

SODIUM HYDROXIDE (CAS 1310-73-2)

Ceiling

2 mg/m3

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

##### Components

##### Type

##### Value

SODIUM HYDROXIDE (CAS 1310-73-2)

PEL

2 mg/m3

#### US. NIOSH: Pocket Guide to Chemical Hazards

##### Components

##### Type

##### Value

SODIUM HYDROXIDE (CAS 1310-73-2)

Ceiling

2 mg/m3

### Engineering controls

Ensure adequate ventilation, especially in confined areas.

## Personal protective equipment

<b>Eye / face protection</b>	Do not get this material in contact with eyes. Wear chemical goggles. Face-shield.
<b>Skin protection</b>	Do not get this material in contact with skin. Do not get this material on clothing. Wear chemical protective equipment that is specifically recommended by the manufacturer. Wear appropriate chemical resistant clothing. It may provide little or no thermal protection. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Wear appropriate chemical resistant gloves.
<b>Respiratory protection</b>	Wear positive pressure self-contained breathing apparatus (SCBA). Avoid breathing dust/fume/gas/mist/vapors/spray.
<b>General hygiene considerations</b>	Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. When using, do not eat, drink or smoke. Wash hands after handling and before eating. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Off-white., Salt mixture..
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Off-white.
<b>Odor</b>	None.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Vapor pressure</b>	0.352913979 hPa estimated
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	1972.12 °F (1077.85 °C) estimated
<b>Melting point/Freezing point</b>	585 °F (307.235294535 °C) estimated
<b>Solubility (water)</b>	Complete
<b>Specific gravity</b>	2.191195588 estimated
<b>Relative density</b>	Not available.
<b>Flash point</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Other data</b>	
<b>Density</b>	2.19 g/cm3 estimated

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under normal temperature conditions.
<b>Conditions to avoid</b>	Not available.
<b>Incompatible materials</b>	Aluminum. Water. Acids. Nitromethane.
<b>Hazardous decomposition products</b>	Contact with acid generates heat and toxic fumes.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Product	Species	Test Results
OXYNATE 7, 40 LBS (CAS Mixture)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	27.5 mg/l 27.5 mg/l, 4 Hours, estimated
<i>Oral</i>		
LD50	Cow	2250 mg/kg, estimated
	Mouse	817 mg/kg
	Rabbit	854 mg/kg
	Rat	398 mg/kg
<i>Other</i>		
LD50	Mouse	73.21 mg/kg
<b>Components</b>	<b>Species</b>	<b>Test Results</b>

SODIUM HYDROXIDE (CAS 1310-73-2)

#### Acute

##### *Other*

LD50 Mouse 40 mg/kg

SODIUM NITRATE (CAS 7631-99-4)

#### Acute

##### *Oral*

LD50 Cow 450 mg/kg  
Mouse 2480 mg/kg  
Rabbit 1600 mg/kg  
Rat 1267 mg/kg

SODIUM NITRITE (CAS 7632-00-0)

#### Acute

##### *Inhalation*

LC50 Rat 5.5 mg/l, 4 Hours

##### *Oral*

LD50 Mouse 175 mg/kg  
Rabbit 186 mg/kg  
Rat 85 mg/kg

**Acute effects** Causes burns.

**Local effects** Irritating to respiratory system.

**Chronic effects** Hazardous by OSHA criteria. Prolonged exposure may cause chronic effects.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Skin corrosion/irritation** Hazardous by OSHA criteria.

## 12. Ecological Information

### Ecotoxicological data

Product	Species	Test Results
OXYNATE 7, 40 LBS (CAS Mixture)		
Crustacea	EC50	Daphnia 74.22 mg/l, 48 hours
	LC50	Daphnia 536 mg/l, 48 hours
Fish	LC50	Fish 90.01 mg/l, 96 hours

**Ecotoxicity** Components of this product are hazardous to aquatic life.  
**Environmental effects** Harmful to aquatic life.  
**Persistence and degradability** Not available.

### 13. Disposal Considerations

**Waste codes** D002: Waste Corrosive material [pH  $\leq$ 2 or  $\geq$ 12.5, or corrosive to steel]  
**Disposal instructions** Dispose of this material and its container at hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.  
**Waste from residues / unused products** Not applicable.

### 14. Transport Information

#### DOT

##### Basic shipping requirements:

**UN number** UN3084  
**Proper shipping name** Corrosive Solids, Oxidizing, n.o.s (SODIUM NITRITE, SODIUM HYDROXIDE)  
**Hazard class** 8  
**Subsidiary hazard class** 5.1  
**Packing group** II  
**Additional information:**  
**Special provisions** IB6, IP2, T3, TP33  
**Packaging exceptions** None  
**Packaging non bulk** 212  
**Packaging bulk** 242

#### IATA

**UN number** UN3084  
**UN proper shipping name** Corrosive Solids, Oxidizing, n.o.s (SODIUM NITRITE, SODIUM HYDROXIDE)  
**Transport hazard class(es)** 8  
**Subsidiary class(es)** 5.1  
**Packing group** II  
**ERG code** 5C

#### IMDG

**UN number** UN3084  
**UN proper shipping name** Corrosive Solids, Oxidizing, n.o.s (SODIUM NITRITE, SODIUM HYDROXIDE)  
**Transport hazard class(es)** 8  
**Subsidiary class(es)** 5.1  
**Packing group** II  
**EmS** F-A, S-Q

#### DOT





## 15. Regulatory Information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

### DEA Exempt Chemical Mixtures Code Number

Not regulated.

### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

SODIUM NITRATE (CAS 7631-99-4) 1.0 % N511

SODIUM NITRITE (CAS 7632-00-0) 1.0 %

### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

SODIUM NITRATE (CAS 7631-99-4) Listed. N511

SODIUM NITRITE (CAS 7632-00-0) Listed.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

SODIUM NITRITE (CAS 7632-00-0) 1.0 % One-Time Export Notification only.

### CERCLA (Superfund) reportable quantity

SODIUM HYDROXIDE: 1000

SODIUM NITRITE: 100

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes

Delayed Hazard - Yes

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

No

#### SARA 311/312 Hazardous chemical

No

### Inventory status

#### Country(s) or region

#### Inventory name

#### On inventory (yes/no)\*

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US - New Jersey RTK - Substances: Listed substance**

SODIUM HYDROXIDE (CAS 1310-73-2)	Listed.
SODIUM NITRATE (CAS 7631-99-4)	Listed.
SODIUM NITRITE (CAS 7632-00-0)	Listed.

**US. Massachusetts RTK - Substance List**

SODIUM HYDROXIDE (CAS 1310-73-2)
SODIUM NITRATE (CAS 7631-99-4)
SODIUM NITRITE (CAS 7632-00-0)

**US. Pennsylvania RTK - Hazardous Substances**

SODIUM HYDROXIDE (CAS 1310-73-2)	Listed.
SODIUM NITRATE (CAS 7631-99-4)	Listed.
SODIUM NITRITE (CAS 7632-00-0)	Listed.

**US. Rhode Island RTK**

SODIUM HYDROXIDE (CAS 1310-73-2)
SODIUM NITRATE (CAS 7631-99-4)
SODIUM NITRITE (CAS 7632-00-0)

**16. Other Information**

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**  
 Health: 3\*  
 Flammability: 1  
 Physical hazard: 1

**NFPA ratings**  
 Health: 3  
 Flammability: 1  
 Instability: 1

**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.

**This data sheet contains changes from the previous version in section(s):** Product and Company Identification: Product and Company Identification  
 Composition / Information on Ingredients: Disclosure Overrides  
 Physical & Chemical Properties: Appearance