

ONOX® SOLUTION

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : ONOX® SOLUTION
Product code : 39010

1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ONOX® Inc.
25858 Clawiter Road
Hayward, CA 94545

1.4. Emergency telephone number

Emergency number : 1-800-533-6669 and Chemtrec 800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2	H315 -	Skin corrosion/irritation Category 2
Eye Dam. 1	H318 -	Serious eye damage/eye irritation Category 1
Repr. Not classified	-	Reproductive toxicity Not classified

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H315 - Causes skin irritation
H318 - Causes serious eye damage

Precautionary statements (GHS-US) : P264 - Wash hands thoroughly after handling
P280 - Wear protective gloves
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362 - Take off contaminated clothing and wash it before reuse

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

01/03/2020

EN (English US)

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Name	Product identifier	%	GHS-US classification
Water	(CAS No) 7732-18-5	76 - 89	Not classified
Zinc chloride	(CAS No) 7646-85-7	3 - 13	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sodium chloride	(CAS No) 7647-14-5	2 - 4	Not classified
Boric acid (H3BO3)	(CAS No) 10043-35-3	1 - 3	Repr. 1B, H360
Sodium nitrate	(CAS No) 7631-99-4	1 - 3	Acute Tox. 4 (Oral), H302
Silicate(2-), hexafluoro-, disodium	(CAS No) 16893-85-9	0.25 - 1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash skin with plenty of water. Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

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6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Wash Always wash hands after handling the product thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Store in a well-ventilated place.

Incompatible products : Strong bases. Strong acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Zinc chloride (7646-85-7)

ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³ (fume)
ACGIH	ACGIH STEL (mg/m ³)	2 mg/m ³ (fume)
OSHA	OSHA PEL (TWA) (mg/m ³)	1 mg/m ³ (fume)

Boric acid (H3BO3) (10043-35-3)

ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (inhalable fraction)
ACGIH	ACGIH STEL (mg/m ³)	6 mg/m ³ (inhalable fraction)

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Colorless watery liquid.

Color : Colorless

Odor : odorless

Odor threshold : No data available

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pH	: 3
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 215 °C
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: 1.085 - 1.1
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

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Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Zinc chloride (7646-85-7)	
LD50 oral rat	1100 mg/kg
ATE US (oral)	1100.000 mg/kg body weight
Boric acid (H3BO3) (10043-35-3)	
LD50 oral rat	2660 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 0.16 mg/l/4h
ATE US (oral)	2660.000 mg/kg body weight
Water (7732-18-5)	
LD50 oral rat	> 90 ml/kg
Sodium chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LC50 inhalation rat (mg/l)	> 42 g/m ³ (Exposure time: 1 h)
ATE US (oral)	3000.000 mg/kg body weight
Sodium nitrate (7631-99-4)	
LD50 oral rat	1267 mg/kg
ATE US (oral)	1267.000 mg/kg body weight
Silicate(2-), hexafluoro-, disodium (16893-85-9)	
LD50 oral rat	125 mg/kg
ATE US (oral)	125.000 mg/kg body weight
ATE US (dermal)	300.000 mg/kg body weight
ATE US (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
pH: 3

Serious eye damage/irritation : Causes serious eye damage.
pH: 3

Respiratory or skin sensitization : Not classified

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Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Silicate(2-), hexafluoro-, disodium (16893-85-9)

IARC group 3 - Not classifiable

Reproductive toxicity : Not classified.

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Boric acid (H3BO3) (10043-35-3)

EC50 Daphnia 1 115 - 153 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Sodium chloride (7647-14-5)

LC50 fish 1 5560 - 6080 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])

EC50 Daphnia 1 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

LC50 fish 2 12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

EC50 Daphnia 2 340.7 - 469.2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Sodium nitrate (7631-99-4)

LC50 fish 1 2000 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

LC50 fish 2 994.4 - 1107 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

Silicate(2-), hexafluoro-, disodium (16893-85-9)

LC50 fish 1 65 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [static])

12.2. Persistence and degradability

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Persistence and degradability Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential Not established.

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Zinc chloride (7646-85-7)	
BCF fish 1	16000
Boric acid (H3BO3) (10043-35-3)	
BCF fish 1	0
Log Pow	-0.757 (at 25 °C)
Sodium chloride (7647-14-5)	
BCF fish 1	(no bioaccumulation)
Sodium nitrate (7631-99-4)	
Log Pow	-3.8 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Zinc chloride (7646-85-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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Boric acid (H3BO3) (10043-35-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Water (7732-18-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Sodium chloride (7647-14-5)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Sodium nitrate (7631-99-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Silicate(2-), hexafluoro-, disodium (16893-85-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Zinc chloride (7646-85-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class E - Corrosive Material
Boric acid (H3BO3) (10043-35-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Water (7732-18-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Sodium chloride (7647-14-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Sodium nitrate (7631-99-4)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class C - Oxidizing Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Silicate(2-), hexafluoro-, disodium (16893-85-9)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

EU-Regulations

No additional information available

National regulations

Zinc chloride (7646-85-7)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Poisonous and Deleterious Substances Control Law Japanese Pollutant Release and Transfer Register Law (PRTR Law) Listed on the Canadian IDL (Ingredient Disclosure List) Listed on INSQ (Mexican national Inventory of Chemical Substances) Listed on Turkish inventory of chemical

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Boric acid (H3BO3) (10043-35-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Water (7732-18-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)

Sodium chloride (7647-14-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Sodium nitrate (7631-99-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Silicate(2-), hexafluoro-, disodium (16893-85-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

15.3. US State regulations

Zinc chloride (7646-85-7)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Sodium nitrate (7631-99-4)

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

Silicate(2-), hexafluoro-, disodium (16893-85-9)

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U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full

H-	Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
	Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
	Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
	Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
	Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
	Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
	Eye Dam. 1	Serious eye damage/eye irritation Category 1
	Repr. 1B	Reproductive toxicity Category 1B
	Repr. Not classified	Reproductive toxicity Not classified
	Skin Corr. 1B	Skin corrosion/irritation Category 1B
	Skin Irrit. 2	Skin corrosion/irritation Category 2
	H301	Toxic if swallowed
	H302	Harmful if swallowed
	H311	Toxic in contact with skin
	H314	Causes severe skin burns and eye damage
	H315	Causes skin irritation
	H318	Causes serious eye damage
	H331	Toxic if inhaled
	H360	May damage fertility or the unborn child
	H400	Very toxic to aquatic life
	H410	Very toxic to aquatic life with long lasting effects

phrases:

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product