

# NuVinAir® Safety Data Sheet

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Prepared in compliance with 29 CFR 1910.1200 (Hazard Communication Standard).

## 1. IDENTIFICATION

### Trade name

NuVinAir® ReFresh

NuVinAir® ReTurn

NuVinAir® ReStore

**RECOMMENDED USES:** Odor reduction

**SUPPLIER INFORMATION:** NuVinAir®, LLC  
5851 Legacy Circle Suite 600 Plano,  
TX 75024

### EMERGENCY CONTACTS

**CHEMTREC:** 1-800-424-9300 (United States, Canada)

## 2. HAZARDS IDENTIFICATION

### Classification under 29 CFR 1910.1200(d):

HEALTH HAZARD CRITERIA	PHYSICAL PROPERTIES CRITERIA
ACUTE TOXICITY, ORAL; 4	EXPLOSIVES: NC
ACUTE TOXICITY, DERMAL: NC	FLAMMABLE GASES: NC
ACUTE TOXICITY, INHALATION, VAPORS: NA	FLAMMABLE AEROSOLS: NA
ACUTE TOXICITY, INHALATION, DUSTS: 4	OXIDIZING GASES: NA
SKIN CORROSION/IRRITATION: 2	GASES UNDER PRESSURE: NA
SERIOUS EYE DAMAGE/EYE IRRITATION: 2	FLAMMABLE LIQUIDS: NA
RESPIRATORY SENSITIZATION: NC	FLAMMABLE SOLIDS: NC
SKIN SENSITIZATION: NC	SELF-REACTIVE CHEMICALS: NC
GERM CELL MUTAGENICITY: NC	PYROPHORIC LIQUIDS: NA
CARCINOGENICITY: NC	PYROPHORIC SOLIDS: NC
REPRODUCTIVE TOXICITY: NC	SELF-HEATING CHEMICALS: NC

SPECIFIC TARGET ORGAN TOXICITY, SINGLE EXPOSURE: NC	CHEMICALS WHICH, IN CONTACT WITH WATER, EMIT FLAMMABLE GASES: NC
SPECIFIC TARGET ORGAN TOXICITY, REPEATED OR PROLONGED EXPOSURE: NC	OXIDIZING LIQUIDS: NA
ASPIRATION HAZARD: NA	OXIDIZING SOLIDS: 2
	ORGANIC PEROXIDES: NC
	CORROSIVE TO METALS: NC

NC = NOT CLASSIFIED IN ACCORDANCE WITH APPENDIX A AND B OF 29 CFR 1910.1200

Supersedes: 10/16/19

**LABEL SIGNAL WORD, HAZARD STATEMENTS, SYMBOLS AND PRECAUTIONARY STATEMENTS**

**UNDER 29 CFR 1910.1200(f)**

**SIGNAL WORD: DANGER**

**HAZARD STATEMENTS:** May intensify fire, oxidizer. Dust harmful if inhaled. Causes serious eye irritation and skin irritation. Harmful if swallowed.



**SYMBOLS:**

**PRECAUTIONARY STATEMENTS:** Keep away from heat. Store away from combustible materials. Take precautions to avoid mixing with combustibles. Avoid breathing dust. Use in well-ventilated area. Use tablets immediately after opening individual pouches.

Product releases chlorine dioxide gas. Do not breathe or try to smell initial fumes released during application. Use product in well ventilated area or outdoors not in direct sunlight. Dispose product away from plant and animal life, natural water sources.

**HAZARDS NOT OTHERWISE CLASSIFIED:** None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients classified as health hazards:**

Activation Tablet		
Compound Name	CAS # Product ID	Composition (%)
Sodium Chlorite (NaClO <sub>2</sub> )	7758-19-2	15-25%

#### 4. FIRST-AID MEASURES

**INHALATION:** Remove to fresh air, seat in a comfortable position, and allow for breathing to return to normal. Symptoms of exposure are coughing, running nose, and sore throat. If breathing is difficult, get medical attention.

**EYE EXPOSURE:** Immediately flush eyes at eyewash station or under gently running water for 15 minutes. Remove contact lenses if possible. Continue rinsing. Symptoms are burning, redness, watering, blurred vision, and sensitivity to light. If eye irritation persists, seek medical advice.

**SKIN EXPOSURE:** If on skin, wash with plenty of water. Remove contaminated clothing and wash before reuse. Symptoms are irritation, itching, redness. Seek medical advice if irritation persists.

**INGESTION:** If swallowed, rinse mouth. Contact a poison control center or doctor if you feel unwell. If conscious then give water and seat in comfortable position. DO NOT try to induce vomiting or flush out body (unless specifically instructed by poison control or medical professional). Symptoms include pain to throat, mouth, and stomach; nausea, vomiting, diarrhea.

#### 5. FIRE-FIGHTING MEASURES

**EXTINGUISHING EQUIPMENT:** Flooding amounts of water. Do not use carbon dioxide foam spray. If fire is large enough, intensifies, or occurs near combustibles or other chemicals, call firefighters. Isolate/evacuate area. Firefighters should wear NIOSH approved self-contained breathing apparatus along with their normal protective equipment.

**SPECIFIC HAZARDS:** Burning or heating product may produce toxic chemical vapors/ smoke corrosive to eyes, skin, and respiratory system. Product can decompose on heating; decomposition products are oxygen, chlorine, and hydrochloric acid. Product is a powerful oxidant, can initiate and sustain combustion of flammable materials. May react violently on contact with combustibles and other materials including, acids, ammonium, reducing agents, organic materials, phosphorus, sulfur, potassium, hydroxide, detergents, and oxidizers, creating an explosion hazard. Product may become unstable at high temperatures and pressures, creating an explosion hazard.

**FIREFIGHTING PROCEDURES:** Spray with water from as far away as possible; fire, other nearby chemicals and containers, entire immediate area containers. Remove/isolate other products/materials if can be done safely. Flood with copious amounts of water, use a fine spray or fog against the gas. Take precautions against exposure to toxic and flammable vapors, additional explosion hazards especially in compact spaces.

**Flashpoint:** N/A

**Flammable Limits:** N/A

## 6. ACCIDENTAL RELEASE MEASURES

**SPILL PROCEDURES:** Contain spillage. Scoop up or vacuum into a container for a reclamation or disposal. Avoid dusting. If a solution of this product is spilled, take up as much as possible and place in a suitable container for disposal in compliance with local regulations. Dilute chlorine dioxide solutions (100-200 ppm) do not need to be pH neutralized. Flush residual material down drain, with an excess of water, in accordance with local regulations.

**PERSONAL PRECAUTIONS:** Gloves, masks, and goggles may be needed when cleaning large liquid spills. Avoid inhaling fumes, exposing skin or eyes. Isolate and ventilate/air-out spill area. Isolate/remove combustibles, reducing agents, sources of ignition, and other incompatibles.

**ENVIRONMENTAL PRECAUTIONS:** Do not dispose of product near/in plant, animal, aquatic habitats. Do not dispose into storm sewers or ditches that lead to natural waterways.

## 7. HANDLING & STORAGE

**HANDLING:** Store only in original packing. Only use content of packaging once. NO partial use. Wear all recommended personal protection when handling. Avoid contact with eyes, skin and clothing. Avoid generating or breathing dust. Wash thoroughly after handling.

**FIRE AND EXPLOSION PROTECTION INDICATIONS:** Avoid direct sunlight. Avoid contact with heat, sparks, open flame and static discharge. Protect against moisture or humidity. Keep away from acids, and combustible materials. Store in a cool, dry location away from incompatible materials.

**STORAGE ROOM:** Cool, dry, clean and locked. Well ventilated.

**COMBINED STORAGE:** Keep away from metal, metal salts, bases, reducing agents and combustible materials.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

	CAS#	OSHA	ACGIH	NIOSH			NOTES
		PEL	TLV	REL	STEL	IDLH	
SODIUM CHLORITE, SOLID	7758-19-2	NE	NE	NE	NE	NE	
CHLORINE DIOXIDE, (GAS)	10049-04-4	0.1 PPM	0.1 PPM	0.1 PPM	0.3 PPM	5 PPM	

**ENGINEERING CONTROLS:** Use only outdoors or in well ventilated areas, out of intense sunlight and heat. Product loses overall effectiveness with sun exposure. Use product with cool water only.

**PERSONAL PROTECTIVE MEASURES:** Observe good personal hygiene measures, such as washing hands after handling the product and before eating, drinking, and/or smoking. Routinely wash work clothing and clean personal protective equipment to remove residues. Practice good housekeeping with attention to the storage and handling precautions. Only use the product in accordance with application instructions. Do not inhale the vapors. Always keep lid on Cyclone Applicator when tablet is dissolving; use caution not to spill liquid while product is in its active form.

**PERSONAL PROTECTIVE EQUIPMENT:** When used in accordance with NuVinAir Cyclone application instructions, no such equipment is required. Safety glasses with side shields and PVC protective gloves are recommended where there is a possibility of splashing, spraying, or spillage.

**RESPIRATORY:** When used in accordance with NuVinAir Cyclone application instructions, no such equipment is required. Use approved respiratory protection if exposure limits are exceeded, or overexposure is likely. If respiratory protection is used, follow all requirements for respiratory programs set forth in OSHA regulations (29 CFR 1910.134).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** White Solid Tablet

**UPPER/LOWER FLAMMABILITY LIMITS:** NOT AVAILABLE

**ODOR:** Odorless to slight chlorine odor

**VAPOR PRESSURE:** N/A

**ODOR THRESHOLD:** NOT DETERMINED

**VAPOR DENSITY:** N/A

**PH:** N/A

**RELATIVE DENSITY:** 2.5

**MELTING/FREEZING POINT:** MELTING POINT 180-200 C

**SOLUBILITY:** Reacts with Water

**INITIAL BOILING POINT AND RANGE:** N/A

**FLASHPOINT:** N/A

**EVAPORATION RATE:** N/A

**FLAMMABILITY:** YES, OXIDANT

**PARTITION COEFFICIENT:** N/A

**AUTO-IGNITION TEMPERATURE:** N/A

**DECOMPOSITION TEMPERATURE:** 200 DEG C

**VISCOSITY:** N/A

## 10. STABILITY AND REACTIVITY

**REACTIVITY:** Product is an oxidizer. It is difficult to burn but will enhance the combustion of other substances; risk of fire and explosion under prolonged exposure to heat or fire; product reacts violently with combustibles, reducing agents, acids, ammonium compounds, phosphorus, sulfur, sodium dithionate, causing an explosion hazard. Product reactivity increases under high heat and or UV radiation, increased pressures/airborne volumes.

**CHEMICAL STABILITY:** Chemical in its solid state is stable (non-reactive) under normal temperatures and pressures. No special handling or storage required. Chlorine dioxide released during product usage with Cyclone

Applicator is more unstable and reactive. At >10% volume in air compound can decompose spontaneously, releasing a pressure pulse (popping noise, “puff”).

**OTHER CONDITIONS TO AVOID:** Heat, flames, UV radiation, too much gas in too small a space, shock, friction, contact with incompatibles, contamination/mixture with other substances.

**INCOMPATIBLE MATERIALS:** Combustible materials, reducing agents, organic materials, ammonia, acids, phosphorus, sulfur, potassium, hydroxide, sodium dithionite.

**DECOMPOSITION PRODUCTS:** Oxygen, chlorine, hydrochloric acid, disodium oxide

**HAZARDOUS POLYMERIZATION:** None

## 11. TOXICOLOGICAL INFORMATION

**Likely routes of exposure:** skin and eye contact; inhalation of gas produced during product usage

### EXPOSURE SYMPTOMS

**INHALATION:** Irritation of respiratory tract. Coughing, difficulty breathing, dust may cause irritation.

**EYE CONTACT:** Severe irritation, watering, and may cause burns and damage.

**SKIN CONTACT:** Skin irritation, itching. Prolonged contact may cause dermatitis or burns.

**INGESTION: HARMFUL IF SWALLOWED.** May cause pain, nausea, upset stomach, diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

**Numerical Measures of Toxicity** (ATE<sub>mix</sub> estimates; testing of the product is not available)

Acute Oral Toxicity	Acute Dermal Toxicity	Acute Inhalation Toxicity
1,136 mg/kg	NC	1.16 mg/L (4 hr; dust)

**CHEMICALS ARE NOT LISTED IN NATIONAL TOXICOLOGY PROGRAM REPORT ON CARCINOGENS, NOR BEEN FOUND TO BE POTENTIAL CARCINOGENS IN THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER OR OSHA.**

## 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:** Not Available

**PERSISTENCE AND DEGRADABILITY:** Not Available

**BIOACCUMULATIVE POTENTIAL:** Not Available

**MOBILITY IN SOIL:** Not Available

**OTHER ADVERSE EFFECTS:** Not Available

## 13. DISPOSAL CONSIDERATIONS

Under the Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user to determine whether a substance should be classified as hazardous waste at the time of disposal. This is due to the fact the product use, transformation, synthesis, mixtures, etc. may change the nature of the material at the time of disposal.

Dispose of waste in accordance with applicable federal, state, and local laws. Keep out of water supplies and sewers. Dispose of product, cleaning items, contaminated items in a separate non-metal container. Potential RCRA waste code based on the product as shipped: D003, Reactivity.

## 14. TRANSPORT INFORMATION

### DOT

Basic Shipping requirements:

UN number	UN1496
Proper shipping name	Sodium chlorite
Hazard class	5.1
Packing Group	II

Additional information:

Special provisions	A9, IB8, IP2, N34, T3, TP33
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Basic shipping requirements:

Labels required	5.1
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Additional information:

Packaging exceptions	None
Packaging non bulk	212
Packaging bulk	242
ERG number	143

### IATA

Basic shipping requirements:

UN number	UN1496
Proper shipping name	Sodium chlorite
Hazard class	5.1
Packing group	II

Additional information:

ERG code	5L
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### IMDG

Basic shipping requirements:

UN number	UN1496
Proper shipping name	Sodium chlorite
Hazard class	5.1
Packing group	II

The applicable packaging section is 49 CFR 173.4 (small quantity -maximum amount of sodium chlorite per individual receptacle is 30 grams). Oxidizer placard not required. Outside package must be marked as follows: "This package conforms to 49 CFR 173.4."

## 15. OTHER REGULATORY INFORMATION

### TSCA Status:

The chemical substances found in this product comply with the Toxic Substances Control Act inventory reporting requirements.

### **EPA SARA Title III Chemical Listings**

**Section 302 Extremely Hazardous Substances:** none

**Sections 311/312 Hazard Class**

Acute Health Effects: yes

Sudden Release of Pressure Hazard: no

Chronic Health Effects: yes

Reactivity Hazard: yes

Fire Hazard: yes

**Section 313 Toxic Release Inventory:**

The product is not subject to the reporting requirements of EPCRA Section 313 of Title II of the Superfund Amendments and Reauthorization Act of 1986 (40 CFR Part 372). Chlorine dioxide released during product usage may be subject to the reporting requirements.

This product does not contain a chemical known to the state of California to cause cancer or developmental effects.

Additional state and local regulations may apply. It is the sole responsibility of the employer to maintain compliance with State and Local reporting and requirements.

## **16. OTHER INFORMATION**

THIS DATA IS FURNISHED INDEPENDENT OF ANY SALES OF THE PRODUCT AND ONLY FOR YOUR INVESTIGATION AND INDEPENDENT VERIFICATION. THE INFORMATION IN THIS DOCUMENT APPLIES TO THE PRODUCT AS SUPPLIED. WHILE THE INFORMATION IS BELIEVED TO BE CORRECT, NUVINAIR SHALL IN NO EVENT BE RESPONSIBLE FOR ANY DAMAGES WHATSOEVER, DIRECTLY OR INDIRECTLY, RESULTING FROM THE PUBLICATION OF OR RELIANCE UPON DATA CONTAINED HEREIN. NO WARRANTY, EITHER EXPRESSED OR IMPLIED, OR MERCHANTABILITY, OF FITNESS, OR OF ANY NATURE WITH RESPECT TO THE PRODUCT, OR DATA, IS MADE HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL NUVINAIR PRODUCTS YOU BUY, PROCESS, USE, OR DISTRIBUTE, AND ADVISE ANY EMPLOYEES WORKING OR EXPOSED TO SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.