

# MIAMI PRODUCTS & CHEMICAL CO.

## SAFETY DATA SHEET

SDS ID: SX7

Revision Date: April 30, 2015

Revision No.: 1

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<b>GHS Product identifier:</b>	Sanygen Iron Stain Remover
<b>Other means of identification:</b>	Item codes: S-X7-5, S-X7-55
<b>Synonyms:</b>	Oxalic acid dehydrate, Oxalic acid, Ethanedioic acid
<b>Recommended use:</b>	Used to remove iron stains from pool/spa surfaces and equipment.
<b>Restriction on Use:</b>	None known.
<b>Manufacturer:</b>	Address: Miami Products & Chemical Co. 520 Lonoke St. Dayton, OH 45403 Tel: (800) 776-1313 Fax: (937) 253-1559
<b>24 Hour Emergency Telephone Number:</b>	CHEMTREC: (800) 424-9300 within the United States CHEMTREC: (703) 527-3887 if international CHEMTREC Contract No: CCN14419

### SECTION 2: HAZARD IDENTIFICATION

**OSHA REGULATORY STATUS:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### GHS Classification in accordance with 29 CFR 1910 (GHS HCS)

Acute toxicity, Oral	Category 4
Acute toxicity, Dermal	Category 4
Serious eye damage/eye irritation	Category 1

#### GHS label elements, including precautionary statements



Pictogram(s):

Signal Word: DANGER

#### GHS Hazard Statements:

Physical hazard statements: Not applicable.

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**Health hazard statements:** H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H318: Causes serious eye damage.

**Environmental hazard Statements:** Not applicable.

### GHS Precautionary Statements:

**General Precautionary Statements:** P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.  
P103: Read label before use.

**Prevention Precautionary Statements:** P264: Wash all affected areas thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P280: Wear protective gloves/clothing and eye/face protection.

**Response Precautionary Statements:** P301+P312+P330: IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth.  
P302+P352+P312: IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.  
P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.  
P322: Specific treatment (see First Aid information on product label and/or Section 4 of the SDS).  
P363: Wash contaminated clothing before reuse.

**Storage Precautionary Statements:** Not applicable.

**Disposal Precautionary Statements:** P501: Dispose of contents/container in accordance with local, regional, and national regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS: None identified.

### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Common Chemical Name	Percent (%)	CAS Number
Oxalic acid dihydrate	≤ 100	6153-56-6

**Formula:**  $C_2H_2O_4 \cdot 2H_2O$

**Molecular Weight:** 126.07 g/mol

#### **SECTION 4: FIRST-AID MEASURES**

**General advice:** If in immediate danger, move out of the affected areas. Show this Safety Data Sheet (SDS) to the attending medical personnel and make sure they are aware of the material(s) involved.

**Inhalation:** Remove to fresh air. If not breathing, give the person artificial respiration. If breathing is difficult, give oxygen. Seek medical attention immediately.

**Skin Contact:** Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly wash contaminated clothing and shoes before reuse. If irritation persists, seek medical attention.

**Eye Contact:** Immediately flush eyes with running water for a minimum of 20 minutes. Hold eyelids open during flushing. After the first 5 minutes of flushing remove contact lense, if present and easy to do, and continue rinsing. If irritation persists, repeat flushing. Obtain medical attention IMMEDIATELY. Do not transport victim until the recommended flushing period is completed unless flushing can be continued during transport.

**Ingestion:** If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar tie, belt, or waistband. Seek medical attention immediately.

#### **Most Important Symptoms and Effects (Both Acute and Delayed)**

**Acute Symptoms/Effects:** Corrosive. Causes serious eye damage. Inhalation of dust may irritate the nose, throat, and/or lungs. Swallowing large amounts may irritate or burn the digestive tract.

**Delayed Symptoms/Effects:** Prolonged exposure to the skin may cause irritation.

**Medical Conditions Aggravated by Exposure:** May aggravate pre-existing conditions such as: eye disorders that decrease tear production or have reduced integrity, skin disorders that compromise the integrity of the skin and respiratory conditions including asthma and other breathing disorders.

**Protection of First-Responders:** Protect yourself by avoiding contact with this material. Avoid contact with skin and eyes. Do not ingest. Use personal protective equipment (PPE). Refer to Section 8 for specific personal protective equipment recommendations.

**Notes to Physician:** Treatment is symptomatic and supportive. If large quantities have been inhaled or ingested, contact a poison treatment specialist immediately. If this product is swallowed, Oxalic acid removes calcium from the blood in the form of calcium oxalate, which may result in kidney damage.

## **SECTION 5: FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** Water spray, dry chemical, alcohol foam, or carbon dioxide (CO<sub>2</sub>). Foam or water on molten oxalic acid may cause frothing. Water spray may be used to keep fire-exposed containers cool.

**Specific hazards arising from the chemical:** Reacts explosively with strong oxidizing materials and some silver compounds.

**Special protective actions for fire-fighters:** Firefighters should wear protective equipment and NIOSH approved self-contained breathing apparatus (SCBA) with full face piece operated in positive pressure mode in a fire involving this material. Use standard firefighting procedures and consider the hazards of other involved materials.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel:** Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (PPE).

**For emergency responders:** If specialized clothing is required to deal with the spillage, take note of any information in Section 8 of this SDS on suitable and unsuitable materials. See also the information in "For non-emergency personnel."

**Environmental precautions:** Do not discharge into drains, sewers, water courses or onto the ground. This material is acidic and may decrease the pH of the surface waters with low buffering capacity. The appropriate agencies must be informed of all significant releases.

### **Methods and materials for containment and cleaning up:**

**SMALL SPILL:** Use appropriate tools to put the spilled solid in a convenient waste disposal container. Make sure that the waste disposal container is properly labeled. When collecting spilled material, use a method that does not generate dust. Dispose of via a licensed waste disposal contractor.

**LARGE SPILL:** Corrosive solid. Stop leak if without risk. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal, being sure to follow all local, state, and federal regulations. See Section 1 of this SDS for emergency contact information and Section 13 of this SDS for waste disposal information.

## **SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling:** Avoid contact with eyes, skin, and clothing. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled. Wear appropriate personal protective equipment (PPE). People working with this chemical should be properly trained regarding its hazards and its safe use. Avoid generating dust. Use smallest possible amounts in designated areas with adequate ventilation. Keep containers closed when not in use. Empty containers may contain hazardous residues. Use corrosion-resistant transfer equipment when dispensing.

**Conditions for safe storage:** Store in a cool, dry, well-ventilated area, out of direct sunlight. If possible, store in the original container. If this is not possible, store this material in a corrosion resistant container with a corrosion resistant inner liner. Keep containers tightly closed when not in use and when empty. Protect from damage. Store this product away from incompatible materials.

**Incompatibilities/conditions to avoid:** This material is strongly acidic and should not be stored near: strong bases, liquid chlorine bleach (hypochlorites), ammonia cleansers, alcohols, and oxidizing agents.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limit(s):** As listed below

Common Chemical Name	ACGIH	OSHA	NIOSH
Oxalic acid dihydrate	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA	1 mg/m <sup>3</sup> TWA
	2 mg/m <sup>3</sup> STEL*		2 mg/m <sup>3</sup> STEL*

\*Short-Term Exposure Limit

**Appropriate engineering controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Please refer to the ACGIH document, *Industrial Ventilation, a Manual of Recommended Practices*, most recent edition, for details.

### **Individual protection measures, such as personal protective equipment (PPE)**

**Eye/face protection:** Use chemical splash goggles and/or a full face shield where dusting or splashing of solutions is possible. Be sure that any equipment used for eye/face protection has been tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU). Maintain eye wash fountain and quick-drench facilities in the work area.

**Skin protection:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Protective gloves should be inspected prior to use. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Recommended gloves: Nitrile rubber with a minimum layer thickness of 0.11 mm (millimeters).

**Respiratory protection:** If the exposure limit is exceeded and engineering controls are not feasible, a half-face respirator with an acid gas cartridge and particulate (NIOSH type N95 or better) filter may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece respirator with an acid gas cartridge and particulate (NIOSH type N100) filter may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (i.e. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied

respirator. WARNING: air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Thermal hazards:** Not applicable.

**General hygiene practices:** It is important to observe good personal hygiene measures, which should include washing immediately after handling this product and before eating, drinking, smoking, chewing gum, or using the toilet. Routinely wash work clothing to remove any residual contaminants.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Color	White crystals
Odor	Odorless
Odor threshold	No data available
pH	1.3 (0.1M Solution)
Melting point/freezing point	101.5° C (215° F)
Initial boiling point and boiling range	Not applicable
Flash point	166 °C (331 °F)
Evaporation rate	No data available
Flammability limit – lower (%)	No data available
Flammability limit – upper (%)	No data available
Explosive limit – lower (%)	No data available
Explosive limit – upper (%)	No data available
Vapor Pressure	< 0.01 mmHg @ 20° C (68° F)
Vapor Density	4.3
Relative density	1.653 g/cm <sup>3</sup>
Solubility(ies)	143 g/L @ 25 °C (77° F)
Partition coefficient: n-octanol/water	Log Pow: -0.81
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** No data available.

**Chemical stability:** This product is stable under normal conditions.

**Possibility of hazardous reactions:** Under normal storage and handling conditions, hazardous reactions will not occur.

**Conditions to avoid:** Do not store dry product where it will be exposed to extremely high temperatures.

**Incompatible materials:** Oxidizing materials, acids, alkalis, chlorine bleach, iron and iron containing compounds, silver.

**Hazardous decomposition products:** Carbon dioxide (CO<sub>2</sub>) and carbon monoxide (CO) may form when heated to decomposition. May also form formic acid.

**Hazardous polymerization:** Will not occur.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **TOXICITY DATA**

**Acute Toxicity Data:**

<b>Common Chemical Name</b>	<b>Method</b>	<b>Species</b>	<b>Dose</b>
Oxalic acid dihydrate	LD <sub>50</sub>	Rat	1,080 mg/kg

#### **Information on likely routes of exposure**

**Ingestion:** Not a likely route of exposure in a workplace setting.

**Inhalation:** Inhalation of dust may irritate the nose, throat and/or lungs.

**Skin contact:** Prolonged exposure may cause skin irritation.

**Eye contact:** May cause serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics:** Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, burning, and blurred vision. May cause permanent eye damage.

**Skin corrosion/irritation:** Oxalic acid dehydrate is a mild skin irritant. Prolonged skin exposure may result in redness and swelling around the contact site.

**Serious eye damage/eye irritation:** Oxalic acid dihydrate causes serious eye damage.

**Respiratory sensitization:** No data available.

**Skin sensitization:** No data available.

**Germ cell mutagenicity:** Oxalic acid dihydrate is not thought to contain any mutagenic properties.

#### **Carcinogenicity**

**IARC:** No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

**ACGIH:** No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

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**OSHA:** No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** No data available.

**Specific target organ toxicity – single exposure:** No data available.

**Specific target organ toxicity – repeated exposure:** No data available.

**Aspiraton hazard:** No data available.

**Chronic effects:** Prolonged or repeated exposure may result in deposits of calcium oxalate in the kidney tubules and the brain, with effects on the cardiac and nervous tissues.

### SECTION 12: ECOLOGICAL INFORMATION

#### ECOTOXICITY DATA

Common Chemical Name	Method	Species	Dose	Duration
Oxalic acid dihydrate	LC <sub>50</sub>	<i>Leuciscus idus</i>	160 mg/L	48 hours
	LC <sub>50</sub>	<i>Daphnia magna</i>	137 mg/L	48 hours
	EC <sub>50</sub>	<i>Pseudomonas putida</i>	1,550 mg/L	16 hours

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** None known.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Disposal methods:** Collect and reclaim or dispose in sealed containers at a licensed waste disposal site. This material and its container must be disposed of as a hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national regulations.

**Waste from residues / unused products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. See Disposal methods.

**Contaminated packaging:** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.



**SECTION 14: TRANSPORT INFORMATION**

**U.S. DOT 49 CFR 172.101**

This product is not regulated.

**SECTION 15: REGULATORY INFORMATION**

**U.S. REGULATIONS:**

- **OSHA REGULATORY STATUS:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
- **SARA 302 COMPONENTS:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- **SARA 313 COMPONENTS:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
- **SARA 311/312 HAZARDS:**
  - Fire hazard: No
  - Reactivity hazard: No
  - Pressure hazard: No
  - Immediate health hazard: Yes
  - Chronic health hazard: Yes

**NATIONAL INVENTORY STATUS:**

- **U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):** All components are listed or exempt.
- **Canadian Chemical Inventory:** All components of this product are listed on either the DSL or the NDSL.

**STATE REGULATIONS:**

- **California Proposition 65:** This product does not contain any Proposition 65 chemicals.

**SECTION 16: OTHER INFORMATION**

<b>SDS Preparation Date:</b>	April 30, 2015
<b>SDS Revision Date:</b>	April 30, 2015
<b>SDS Revision No.:</b>	1

**REASONS FOR REVISION:**

- Updated SDS header

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- Changed the SDS format to meet the GHS requirements of the revised 2012 OSHA HCS (29 CFR 1910.1200)
- Product identifier has been added or updated (See Section 1)
- Revised Hazards Identification information (See Section 2)
- Added GHS Information (See Section 2)
- Updated First-Aid Measures (See Section 4)
- Updated Fire Fighting Measures (See Section 5)
- Revised Accidental Release Measures (See Section 6)
- Revised Handling and Storage Recommendations (See Section 7)
- Updated Exposure Controls/Personal Protection (Section 8)
- Updated Physical and Chemical Properties (See Section 9)
- Updated Stability and Reactivity (Section 10)
- Updated Toxicological Information (Section 11)
- Updated Ecological Information (Section 12)
- Updated Disposal Considerations (See Section 13)
- Updated Regulatory Information ( See Section 15)
- Added SDS Preparation Date, SDS Revision Date, and SDS Revision No. (See Section 16)
- Added "End of SDS Document" phrase
- Added a list of abbreviations that may have been used in the SDS

### **ABBREVIATIONS (please note that not all abbreviations may appear on this SDS):**

**ACGIH** = American Conference of Governmental Industrial Hygienist  
**CAS** = Chemical Abstract Service  
**CERCLA** = Comprehensive Environmental Response, Compensation, and Liability Act  
**CFR** = Code of Federal Regulations  
**DOT** = Department of Transportation (United States)  
**DSL/NDSL** = Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** = European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**EN** = European Norm  
**EPCRA** = Emergency Planning & Community Right to Know Act (1986)  
**EU** = European Union  
**GHS** = Global Harmonization System  
**HMIS** = Hazardous Materials Information System  
**IARC** = International Agency for Research on Cancer  
**IATA** = International Air Transport Association  
**IDLH** = Immediately Dangerous to Life or Health  
**IMDG** = International Maritime Dangerous Goods (Code)  
**ICAO** = International Civil Aviation Organization  
**NFPA** = National Fire Protection Association  
**NIOSH** = National Institute for Occupational Safety and Health  
**N.O.S.** = Not Otherwise Specified  
**NTP** = National Toxicology Program  
**OSHA** = Occupational Safety and Health Administration  
**PBT** = Persistent Bioaccumulative and Toxic  
**PEL** = Permissible Exposure Limit;  
**pH** = A measure of the acidity or alkalinity of a solution  
**PSM** = Process Safety Management

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**RQ** = Reportable Quantity  
**SARA** = Superfund Amendments and Reauthorization Act  
**SDS** = Safety Data Sheet  
**STOT** = Specific Target Organ Toxicity  
**TLV** = Threshold Limit Value  
**TSCA** = Toxic Substance Control Act  
**TWA** = Time-weighted Average  
**UN** = United Nations

**DISCLAIMER:** This SDS generally complies with the requirements set forth in 29 CFR 1910.1200 and Annex 5, Fifth Edition (2014) Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, Miami- Products & Chemical Co. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Miami Products & Chemical Co. be responsible for damages of any nature whatsoever resulting from the use of, misuse or reliance upon information. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to information or the product to which information refers. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure its activities comply with federal, State, Provincial, and local laws and regulations.

The information contained in this SDS is subject to revision as additional knowledge, information, and experience is gained.

**END OF SDS DOCUMENT**