

	<b>SAFETY DATA SHEET</b>	Page: 1 of 8 Revised edition no: 2 Date: 08 / 01 / 2018 Supersedes: 4 / 24 / 2014
<b>Marbrofin ® X</b>		<b>0003</b>

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## SECTION 1 Identification of the substance/mixture and of the company/undertaking

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### 1.1 Product identifier

Trade name Marbrofin ® X

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

Use: Powder to crystallize limestone soils.

### 1.3 Details of the supplier of the safety data sheet

Company identification : International Stoneworks, Inc.  
 8650 Fairbanks N. Houston  
 Houston, TX. 77064  
 713-956-8291  
 E-mail: sales@intlstoneworks.com

### 1.4 Emergency telephone number

Emergency phone number CHEMTREC  
 1-800-424-9300

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## SECTION 2 Hazards identification

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### 2.1 Classification of the substance or mixture

This preparation is regulated according to 67/548/EEC and/or 1999/45/EC European Directives, their adaptations and annexes.

#### Classification EC 67/548 or EC1999/45

Classification Xn; R21/22  
 Xi; R38-41

#### Physical-chemical hazards to human health and the environment

R21/22 - Harmful in contact with skin and if swallowed.  
 R38 - Irritating to skin.  
 R41 - Risk of serious damage to eyes.

#### Hazard Class and Category Code (sl. Regulation (EC) No 1272/2008 (CLP)

Hazards identification-CLP H318 - Causes serious eye damage  
 H302 - Harmful if swallowed  
 H315 - Causes skin irritation

• Health hazards : Acute toxicity, Oral - Category 4 - Warning - (CLP: Acute Tox. 4) - H302  
 Skin irritation- Category 2 - Warning - (CLP: Skin Irrit. 2) - H315 Serious eye damage - Category 1 - Danger - (CLP: Eye Dam. 1) - H318

### 2.2. Label elements

#### Labelling Regulation EC 1272/2008 (CLP).

Obligatory mention labelling

	<b>SAFETY DATA SHEET</b>	Page: 2 of 8 Revised edition no: 3 Date: 08/01/2018 Supersedes: 4 / 24 / 2014
<b>Marbrofin® X</b>		<b>0003</b>

## SECTION 2 Hazards identification(continued)

Contains Oxalic acid - Magnesium hexafluorosilicate



- Hazard pictograms : GHS05 - GHS07
- Hazard pictograms : GHS05 - GHS07
- Signal words : Danger/ Caution
- Hazard statements : H318 - Causes serious eye damage  
H302 - Harmful if swallowed  
H315 - Causes skin irritation

• Precautionary statements

Prevention  
 P264 - Wash face and hands thoroughly after handling.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P270 - Do not eat, drink or smoke when using this product

Response  
 P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 P330 - Rinse mouth.  
 P302+352 - IF ON SKIN: Wash with plenty of soap and water  
 P332+313 - If skin irritation occurs: Get medical advice/attention  
 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 or doctor/physician

Disposal considerations  
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with the local, regional, national and/or international regulations.

2.3. Other hazards

Other Undesirable human health effects

## SECTION 3 Composition/information on ingredients

3.2. Mixture

Substance / Mixture Mixture of abrasive and acid powder  
 Components Hazardous components leading to classification or present under classification thresholds:

Substance name	Contents	CAS No	EC No	Annex No	N° Registration	Classification
Oxalic acid dihydrate	50% 10 70 %	6153-56-6	208-634-3		01-2119534576-33	Xn,R21/22 X, R4  Eye Dam I.H318 Irrite Tox 4 (C)errr, IJJ, H312 Acute Tox 4 ( )H302
sulfur	20 1030%	7704-3-9	231-122-6	o,ma:0o-1	01-2119481295-27	
Magnesium hexafluorosilicate	4 106%	16949-65-8	241-022-2	oos-0IS-00-3		Sionlml 2.H315 Irrit Acute Tox 3 (Oral).H301

In case of emergency: CHEMTREC 1-800-424-9300

	<b>SAFETY DATA SHEET</b>	Page: 3 of 8 Revised Edition no: 3 Date: 08 /01 / 2018 Supersedes: 04/24/2014
<b>Marbrofin ® X</b>		<b>0003</b>

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#### SECTION 4 First aid measures

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##### 4.1. Description of first aid measures

- Inhalation : . See a doctor if respiratory symptoms appear or persist.
- Skin contact : Flush with plenty of water. Seek medical advice if an irritation appears.
- Skin contact : In case of eye contact immediately rinse with clean water for 10-15minutes.
- Eye contact : Contact ophthalmologist immediately.
- Ingestion : If the person is conscious, rinse mouth with water. Do not induce vomiting without seeking medical advice.  
Call immediately a physician.

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

See 2.1/2.3

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

needed No information / dataavailable

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#### SECTION 5 Firefighting measures

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##### 5.1 Extinguishing media

- Suitable extinguishing media : Sprayed water with additive, chemical powder, chemical foam, carbon dioxide extinguisher
- Unsuitable extinguishing media : Dense water jet.

##### 5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Combustion can generate toxic gas or smoke such as carbon oxides, sulphur oxides, silica tetrafluoride and magnesium fluoride.

##### 5.3. Advice for firefighters

**Special protective equipment for fire fighters** Wearing self-contained, insulating breathing equipment is recommended when entering the danger zone.

**Further information:** : Prevent fire-fighting water from entering wastewater.

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#### SECTION 6 Accidental release measures

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

Personal precautions : Do not inhale the powder or dusts

Avoid contact with skin and eyes.  
Personal protection: see chapter 8.

6.2. Environmental precautions : Avoid discharge into drinking water supplies, wastewater or soil.  
Notify authorities if product enters sewers or public waters.

##### 6.3. Methods and material for containment and cleaning up

Clean up methods : Physically collect the product by sucking and/or sweeping it up and store in suitable containers for disposal.  
Clean up residues in the contaminated area with plenty of water.

##### 6.4. Reference to other sections

For information on handling, see chapter 7. For information on personal protection equipment, see chapter 8. For information on disposal see chapter 13.

	<b>SAFETY DATA SHEET</b>	Page: 4 of 8 Revised edition no: 3 Date: 08 / 01 / 2018 Supersedes: 4 / 24 / 2014
<b>Marbrofin ® X</b>		<b>0003</b>

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## SECTION 7 Handling and storage

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### 7.1 Precautions for safe handling

Precautions in handling: Do not eat or drink at point of use. Do not inhale the powder or dusts

Avoid contact with skin and eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep the product in its original packing and dry at a temperature above 5°C. Provide local exhaust or general room ventilation.

### 7.3. Specific end use(s)

No information / data available

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## SECTION 8 Exposure controls /personal protection

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### 8.1 Control parameters

Occupational Exposure Limits (INRS France (ED 984)) (for oxalic acid anhydride) Oxalic acid dihydrate: VME - France  
[mg/m<sup>3</sup> 1

DNE3 values (for oxalic acid dihydrate)  
-Dermal/Worker/short term-local effects: 0.69 mg/cm<sup>2</sup>  
-Dermal/Worker/long term-local effects  
-systemic effects: 2.29 mg/kg /day  
-Inhalation/Worker/long term  
-systemic effects: 4.03 mg/m<sup>3</sup>  
-Dermal/General public/short-term local effects: 0.3

.PNEC values (for oxalic acid dihydrate)  
Fresh water: 0.1622 mg/l  
-Sea water: 0.01622 mg/l  
-water (intermittent release: 0.1622mg/l  
-STP: 1550 mg/l

### 8.2. Exposure controls

- Respiratory protection : Approved dust or mist respirator should be used if airborne particles are generated when handling this material. Dust / anti-aerosol filter type P3 (according to standard EN 143)

- Hand protection : Wear gloves.  
Due to the many possible conditions of exposure, the user should consider the actual period of use of a chemical protective glove to be significantly shorter than the period prior to permeation. You must follow the manufacturer's instructions, particularly concerning minimum thickness and minimum period prior to permeation. This information must not replace the compliance tests carried out by the final user. The protection provided by the glove depends on the conditions in which the substance/mix is used.  
Use at minimum a pair of chemical resistant, leak-proof gloves (compliant with the EN374 standard). The use of this product means that the type of material and thickness of the gloves and the time taken to break down the material used to make the gloves cannot be decided until an in-depth study of the work station has taken place, leading to a clear definition of the conditions of use and the most accurate possible evaluation. The gloves should therefore be chosen with the advice of the individual protective equipment manufacturer. Neoprene or nitrile rubber gloves (according to standard EN374).

	<b>SAFETY DATA SHEET</b>	Page: 5 of 8 Revised edition no: 3 Date: 08 /01 / 2018 Supersedes: 4 / 24 / 2014
<b>Marbrofin ® X</b>		<b>0003</b>

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### SECTION 8 Exposure controls/personal protection (continued)

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- Eye protection	: Goggles with lateral protection (according to standard EN 166).
- Skin protection	: Wear suitable protective clothing under the conditions of use. Acid resistant clothing
Technical protective measures	: Use in well ventilated place.
Industrial hygiene	: Wash hands after working with the product. Change contaminated clothing and wash it before re-use. Do not eat, drink or smoke in the workplace under any circumstances

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### SECTION 9 Physical and chemical properties

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#### 9.1 Information on basic physical and chemical properties

Physical state at 20°C	: Coarse powder
Color	: Green
Odor	: Odorless
pH value in distilled water	(109/1) 1.8
Melting point [°C]	98 to 100 (for oxalic acid dihydrate)
Boiling point [°C]	Not applicable
Flash point [°C]	Not applicable
Relative evaporation rate	Not applicable.
Flammability (solid, gas)	: Non-combustible.
Explosion limits	Not applicable.
Vapor pressure [20°C]	Not applicable.
Relative vapor density (air=1)	Not applicable
Bulk density (g/ml)	1
Solubility in water	Partially soluble.
Log P octanol / water at 20°C	Not applicable
Auto-ignition temperature [°C]	400 (for oxalic acid dihydrate)
Decomposition point [°C]	No data available.
Viscosity	Not applicable
Characteristic of explosiveness	Inexplosive
Oxidizing properties	: non-oxidizing
Sublimation point [°C]	: Circa 160 (for oxalic acid dihydrate)

#### 9.2. Other information

No information / data available

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### SECTION 10 Stability and reactivity

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#### 101. Reactivity

No information / data available

#### 102. Chemical stability

The product is stable in normal conditions of use

#### 103. Possibility of hazardous reactions

	<b>SAFETY DATA SHEET</b>	Page: 6 of 8 Revised edition no: 3 Date: 08 / 01 / 2018 Supersedes: 4 /24 / 2014
<b>Marbrofin ® X</b>		<b>0003</b>

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**SECTION 10 Stability and reactivity (continued)**


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Combustion can generate toxic gas or smoke such as carbon oxides, sulphur oxides, silica tetrafluoride and magnesium fluoride

104. Conditions to avoid

Avoid strong heating  
Protect from the contact with water or moisture

105. Incompatible materials

Oxidizing agents, strong acids, strong bases. sodium hypochlorite

106. Hazardous decomposition products

In event of fire: see Section 5.

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**SECTION 11 Toxicological information**


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**11.1. Information on toxicological effects**

- Acute toxicity : Harmful if swallowed
- LOSO (ora l, rat) [mg/kg] : Oxalic acid: Acute oral toxicity: DL50 375 mg/kg (rat) Acute dermal toxicity: DL50 200 mg/kg (rabbit)
- ATE oral on the mixture ATE : Circa 595 mg/kg
- dermal on the mixture : Circa 2500 mg/kg
- Serious eye damage/irritation : Causes serious eye damage
- Skin corrosion/irritation : Causes skin irritation
- Respiratory or skin sensitization : To the best of our knowledge (and taking into account its composition) this product is not classified in this hazard category
- Germ cell mutagenicity : To the best of our knowledge (and taking into account its composition) this product is not classified in this hazard category.
- Carcinogenicity : To the best of our knowledge (and taking into account its composition) this product is not classified in this hazard category.
- Reproductive toxicity : To the best of our knowledge (and taking into account its composition) this product is not classified in this hazard category.
- STOT-single exposure : To the best of our knowledge (and taking into account its composition) this product is not classified in this hazard category.
- STOT-repeated exposure : To the best of our knowledge (and taking into account its composition) this product is not classified in this hazard category.
- **Aspiration hazard**
- information on the likely routes of exposure:
- Inhalation
- Eyes contact : Can provoke irritations with risk of serious lesions if decontamination is not carried out immediately.
- Dermal contact : Harmful in contact with skin.
  - The product can irritate wet skin by partial hydration resulting in a high pH.
- Ingestion : Harmful if swallowed

# SAFETY DATA SHEET

Page: 7 of 8

Revised edition no: 3

Date: 08 / 01 / 2018

Supersedes: 4 / 24 / 2014

**Marbrofin® X**

**0003**

## SECTION 12 Ecological information

### 12.1. Toxicity

On product

: No study has been carried out on this mixture for the moment.

Avoid discharge into drinking water supplies, wastewater or soil.

Oxalic acid: Toxicity for fish: CL50 160 mg/l (48 h, Carassius auratus (Goldfish)

Source: Toxicity on Daphnia literature: CE50 162, 2 mg/l (48 h, Daphnia magna)

Method: OECD guideline 02 Toxicity on algae: other 80 mg/l (8 d, Microcystis

aeruginosa (freshwater cyanobacteria) Method: other Toxicity on bacteria: other 1.

550 mg/l (16 h, Pseudomonas putida) Source: literature

Eco toxic effects:

: Can have detrimental effects on aquatic organisms at high concentrations because of the pH effect.

### 12.2. Persistence and degradability

**Biodegradability:**

No information available

Oxalic acid: Biodegradability: 89 % (20 d, D80 5/DCOX100) Easily biodegradable.

Source: literature Chemical Oxygen Demand (COD): approx. 180 mg/g Source:

literature Biochemical Oxygen Demand (DBO 5): approx. 160 mg/g Source: literature

### 12.3. Bio accumulative potential

No information / data available

Oxalic acid:

Considering the low log Pow, no bioaccumulations expected.

### 12.4. Mobility in soil

No information / data available

### 12.5. Results of PBT and vPvB assessment

No information / data available

Oxalic acid: The substance does not fulfil the criteria given in Appendix XIII of EC Regulation 1907/2006 and is not identified as a PST or vPvB substance.

### 12.6. Other adverse effects

No information / data available

## SECTION 13 Disposal considerations

### 13.1. Waste treatment methods

General

: Dispose of in accordance with local/national safety regulations

Elimination of the product residues:

: Unused residues of the product must be considered as dangerous waste.

They must be neutralized before dumping or incinerated in a certified installation.

Empty packaging Disposal:

: Eliminate by incineration or salvage the packing for recycling after elimination of the product residues.

## SECTION 14 Transport information

**General information**

**The product is not subject to the transport requirements: - by road RID/ADR - by sea IMO/IMDG - by air ICAO/IATA**

### 14.1. UN number

Not classified for transport of Dangerous Goods.

	<b>SAFETY DATA SHEET</b>	Page: 8 of 8 Revision edition no: 3 Date: 08 / 01 / 2018 Supersedes: 4 / 24 / 2014
<b>Marbrofin ® X</b>		<b>0003</b>

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**SECTION 14 Transport information (continued)**


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**14.2. UN proper shipping name**

Not classified for transport of Dangerous Goods.

**14.3. Transport hazard class(s)**

Not classified for transport of Dangerous Goods.

**14.4. Packing group**

Not classified for transport of Dangerous Goods.

**14.s. Environmental hazards**

- Marine pollutant : No.

**14.6. Special precautions for user**

No special precautions (ungraded product transportation)

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Non-concerned

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**SECTION 15 Regulatory information**


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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Ensure all national/local regulations are observed.

**15.2. Chemical safety assessment**

No information / data available

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**SECTION 16 Other information**


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List of relevant **R** phrases (heading 3): R21/22 - Harmful in contact with skin and if swallowed.

R25: Toxic if swallowed.

R38 - Irritating to skin.

R41 - Risk of serious damage to eyes.

list of relevant **H** phrases (heading 3): H301 - Toxic if swallowed

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H315 - Causes skin irritation

H318 - Causes serious eye damage

Revision

Following major changes, the MSDS has been completely revised.

Origin of key data used

: This safety data sheet was produced on the basis of information supplied by the manufacturer.

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The contents and format of this SDS are in accordance with the EC Regulation No. 1907/2006 and the EC Regulation No. 453/2010

**DISCLAIMER OF LIABILITY:**

This safety data sheet does not replace the using technical notice but complete it. The information given above is based on the present state of our knowledge and experience about this product at this version date. It is provided in good faith. More over users' attention is drawn on the possible risks incurred if this product is not properly used. This data sheet does not dispense in any case the user to know and applies all regulatory rules concerning his activity.

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End of document

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In case of emergency: CHEMTREC 1-800-424-9300