

Product name(s): Selective Micro® Clean 2L100A, Selective Micro® Clean 750A, Selective Micro® 2L50A

Effective Date: 12.04.2019

Replaces Revision: 02.26.2019

Creation Date: 05.05.2014

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## SECTION 1: Identification

### 1.1 Product identifier

Product name: Selective Micro® Clean 2L100A, Selective Micro® Clean 750A, Selective Micro® 2L50A

REACH Registration Number: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

### 1.2 Relevant identified uses of the substance

Identified uses:  
Cleaning agent  
Inorganic oxidizing agent  
Production of chlorine dioxide

Uses advised against:

There are no uses advised against providing that the instructions described in this Safety Data Sheet are observed.

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

Manufacturer: Selective Micro Technologies, LLC; 6200 Avery Rd, Suite A, Dublin, Oh 43016

Phone: 855-256-8299

### 1.4

#### Emergency telephone number

Emergency Contact: 24-Hour Chemtrec Emergency Telephone: 800-424-9300

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture:

Oxidizing solids (category 2), H272

### 2.2 Label elements:

Signal Words: Danger



H272

H302

H314

H335

H315+H320

*May intensify fire; oxidizer*

*Harmful if swallowed.*

*Causes severe skin burns and eye damage.*

*May cause respiratory irritation.*

*Causes skin and eye irritation.*



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<i>P210</i>	<i>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</i>
<i>P261</i>	<i>Avoid breathing dust/fume/gas/mist/vapours/spray.</i>
<i>P264</i>	<i>Wash exposed area thoroughly after handling.</i>
<i>PP271</i>	<i>Work in a well-ventilated area.</i>
<i>P280</i>	<i>Wear protective gloves/protective clothing/eye protection/face protection.</i>
<i>P308+P313</i>	<i>IF exposed or concerned: Get medical advice/attention.</i>
<i>P301+P330</i>	<i>IF SWALLOWED: Rinse mouth.</i>
<i>P303+P361+P353+P364</i>	<i>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. And wash it before reuse.</i>
<i>P304+P340+P314</i>	<i>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.</i>
<i>P305+P351+P338</i>	<i>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</i>

## 2.3 Other Hazards

There is no additional information.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substance

Not applicable

### 3.2 Mixture

Ingredient	CAS Number	Percent	Classification Regulation (EC) 1272/2008
Sodium Chlorite	7758-19-2	15-40	Oxidizing solid, category 2, H272
Citric Acid	77-92-9	55-85	Eye irritation, Category 2, H319

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## SECTION 4: First aid measures

### 4.1 Description of first aid measure

#### *CONTACT WITH DRY PRODUCT*

**SKIN:** Brush off loose product. Rinse skin immediately with plenty of water, then wash area with soap and water. Call a poison control center or doctor for treatment advice.

**EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. Seek medical attention immediately.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Have person drink large quantities of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**INHALATION:** Remove individual from exposure to chemical. Seek fresh air. If individual is not breathing, administer CPR. If breathing is labored, seek medical attention.

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

Inhalation: It can cause irritation of the respiratory tract and airways.

Skin contact: May cause skin irritation.

Eye contact: May cause burns in the eyes.

Ingestion: It may cause burns in the mouth and oesophagus.

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

Need of medical attention.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

A lot of water. Form curtains of water to absorb the gases that are generated in the combustion.

Keep containers and deposits cool, spraying them with water if exposed to the fire.

If feasible, remove the combustible agent.

Remove the containers from the area of fire, if this does not entail risk.

Unsuitable extinguishing media:

CO<sub>2</sub> powder (powdered dry ice), foam (organic products).

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

FIRE AND EXPLOSIVE HAZARD: Sodium chlorite in the unactivated product is a strong oxidizer, and can support combustion in the absence of air.

HAZARDOUS COMBUSTION PRODUCTS: Decomposition can release oxygen that supports combustion and reduces effectiveness of suffocation-type extinguishing agents. Thermal decomposition products from incomplete combustion (pyrolysis) include carbon monoxide, carbon dioxide, and inorganic chlorine compounds.

### 5.3 Advice for firefighters

Wear full protective clothing and self-contained breathing apparatus with full face piece (pressure-demand, NIOSH-approved). Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

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## SECTION 6: Accidental release measures

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

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

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## 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.

Recover the whole product that is possible in a clean dry plastic or metallic container.

Following product recovery, flush area with water.

## 6.3 Methods and material for containment and cleaning up

Absorb any spillage using sand, earth or clay. Wash the area with plenty of water.

## 6.4 Reference to other sections

See protection measures in section 8.

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## SECTION 7: Handling and storage

### 7.1 Handling

Use product as directed by label. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Thoroughly rinse any protective gear and handling equipment used prior to storage and reuse.

### 7.2 Storage

Observe all applicable regulations when storing this substance. Keep unactivated product in a cool, dry, ventilated area away from direct sunlight. Do not store with acids, chlorine and chlorine compounds, hypochlorites (bleach), organic solvents, sulfur and sulfite compounds, phosphorus, and combustible/flammable materials. Do not store in areas where sparking may occur.

### 7.3 Specific end use(s)

Production of chlorine dioxide

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

VLA-ED: 0,1 ppm 0,28 mg/m<sup>3</sup> VLA-EC 0,3 ppm 0.84 mg/m<sup>3</sup> (INSHT, Spain) (as ClO<sub>2</sub>)

TLV-TWA: 0,1 ppm 0,28 mg/m<sup>3</sup> STEL-C 0,3 ppm (ACGIH) (as ClO<sub>2</sub>)

WEL- Limit value - Eight hours: 0,1 ppm 0,28 mg/m<sup>3</sup> WEL- Limit value – short-term: 0,3 ppm 0.84 mg/m<sup>3</sup> (UK) (as ClO<sub>2</sub>)

Dust (If sachet is torn):

Particulates, nor otherwise regulated:

TLV-TWA- Total dust 10 mg/m<sup>3</sup>

Respirable dust 3 mg/m<sup>3</sup> (ACGIH 2005)

### 8.2 Exposure controls

### 8.3 Appropriate engineering controls



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## 8.4 Personal protective equipment

### Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Skin Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 8.5 Control of environmental exposure

Prevent further leakage or spillage if safe to do so.

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## SECTION 9. Physical and chemical properties

APPEARANCE: Dry Product-white powdery substance.

UPPER/LOWER FLAMMABILITY LIMITS: NA

ODOR: Dry Product-NA

VAPOR PRESSURE: NA

ODOR THRESHOLD: No data

VAPOR DENSITY: NA

pH: NA

RELATIVE DENSITY: NA

MELTING/FREEZING POINT: NA

SOLUBILITY: COMPLETE

INITIAL BOILING POINT AND BOILING RANGE: NA

FLASH POINT: 185°C

EVAPORATION RATE: NA

FLAMMABILITY: NA

PARTITION COEFFICIENT: NA

AUTO-IGNITION TEMPERATURE: NA

DECOMPOSITION TEMPERATURE: 160°C

VISCOSITY: NA

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Due to its oxidising property the substance reacts with combustible and/or reducing materials.

### 10.2 Chemical stability

Product is stable under normal storage conditions (room temperature).

### 10.3 Possibility of hazardous reactions

Dangerous reactions are not expected handling the product according to its intended use.

### 10.4 Conditions to avoid

Avoid storing product where it might become wet, or where the spilled contents of the damaged, unactivated pouch could dry to a crystalline salt or produce chlorine dioxide gas. Do not store where dry material may come into contact with sparking.

### 10.5 Incompatible Material

Avoid accidental contact of dry ingredients or activated product with acids, chlorine compounds, hypochlorites (bleach), sulfur and sulfite compounds, phosphorus, organic solvents, and combustible/flammable materials.

### 10.6 Hazardous decomposition products

No information available.

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects Mixture

#### *Acute oral toxicity*

Acute toxicity estimate: 1.164 mg/kg

Calculation method

#### *Acute inhalation toxicity*

This information is not available.

#### *Acute dermal toxicity*

Acute toxicity estimate : 549,18 mg/kg

Calculation method

#### *Skin irritation*

This information is not available.

#### *Eye irritation*

This information is not available.

#### *Sensitisation*

This information is not available.

#### *Germ cell mutagenicity*

This information is not available.

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*Carcinogenicity*

This information is not available.

*Reproductive toxicity*

This information is not available.

*Teratogenicity*

This information is not available.

*Specific target organ toxicity - single exposure*

This information is not available.

*Specific target organ toxicity - repeated exposure*

This information is not available.

*Aspiration hazard*

This information is not available.

## 11.2 Further information

Handle in accordance with good industrial hygiene and safety practice.

### Components

*citric acid*

*Acute oral toxicity*

LD50 Rat: 11.700 mg/kg  
OECD Test Guideline 401

*Acute dermal toxicity*

LD50 Rat: > 2.000 mg/kg  
OECD Test Guideline 402

*Skin irritation*

Rabbit  
Result: No irritation  
OECD Test Guideline 404

*Eye irritation*

Rabbit  
Result: Severe irritations  
OECD Test Guideline 405

*Germ cell mutagenicity*

*Genotoxicity in vivo*  
Chromosome aberration test  
Rat  
male  
Oral  
Result: negative  
Method: OECD Test Guideline 475

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*Genotoxicity in vitro*

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

*Reproductive toxicity*

No impairment of reproductive performance in animal experiments. (Lit.)

*Teratogenicity*

Did not show teratogenic effects in animal experiments. (Lit.)

*sodium chlorite*

*Acute oral toxicity*

LD50 Rat: 284 mg/kg

OECD Test Guideline 401

*Acute dermal toxicity*

LD50 Rabbit: 134 mg/kg

US-EPA

*Skin irritation*

Rabbit

Result: Corrosive after 3 minutes to 1 hour of exposure

US-EPA

*Eye irritation*

Rabbit

Result: Irreversible effects on the eye

Aqueous solution

*Repeated dose toxicity*

Rat

male and female

Oral

13 Weeks

daily

NOAEL: 10 mg/kg

US-EPA

Subchronic toxicity

*Germ cell mutagenicity*

*Genotoxicity in vivo*

Chromosome aberration test

Mouse

male and female

Oral

Result: negative

Method: OECD Test Guideline 475

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to daphnia and static test EC50 - Daphnia magna (Water flea) - < 1 mg/l - 48 h other aquatic (OECD Test Guideline 202) invertebrates

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata (green algae) - 1 mg/l - 96 h  
12.2

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Spent containers shall be rinsed to remove all remaining product.

Dilute the product with abundant water avoiding the presence of solids which it may ignite (clothing, paper, wood, etc).

Take into account considerations stated in previous sections regarding incompatibilities.

The product will be disposed of in accordance with the regulation currently in force and specifically with:

- Directive 2008/98/EC, of 19 November 2008 on waste and the corresponding national regulations which transpose this Directive.
  - Directive 94/62/EC, of 20 December 1994 on packaging and packaging waste and its modifications and corresponding national regulations which transpose this Directive.
  - Commission Decision 2001/118/EC of 16 January 2001 amending Decision 2000/532/EC as regards the list of wastes and any other regulation currently in force in the European Community, National and Local with regard to the correct disposal of this material and its empty containers.
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## SECTION 14: Transport information

14.1 UN No.	UN 1496
14.2 UN Proper shipping name	Sodium Chlorite
14.3 Transport hazard class(es)	5.1
Hazard label(s)	5.1
14.4 Packing group	II
Conforms to 49 CFR 173.4 for road and rail transfer; IATA: Dangerous goods in excepted quantities	
14.5 Environmental hazards	na

## SECTION 15: Regulatory information

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

Major Accident Hazard Legislation	SEVESO II OXIDIZING LIQUIDS AND SOLIDS
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	not regulated
Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC	not regulated
Substances of very high concern (SVHC)	This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $\geq 0.1\%$ (w/w).

## SECTION 16: Other information

### DISCLAIMER OF WARRANTY

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user, and WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. Nothing is intended as a recommendation for uses that infringe valid patents or as extending license under valid patents. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or transmission of this document, in whole or in part, is not permitted. Selective Micro Technologies, LLC assumes no responsibility for accuracy of information unless the document is the most current available from an official Selective Micro Technologies, LLC distribution system. Selective Micro Technologies, LLC neither represents nor warrants that the format, content or product formulas contained in this document comply with the laws of any other country except in the United States of America.