

# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>TOTAL K.O.- MICRO-ORANGE 2</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Natural citrus degreaser
<b>Recommended restrictions</b>	None known.
<b>Manufacturer</b>	D.L. INDUSTRIAL SUPPLIES ONTARIO, K0A 1M0 Tel.: 1 888-214-3207 -Cell.: 613 884-3207 www.totalko.ca
	<b>Emergency Phone (CANUTEC 24 H, Emergency only) : (613) 996-6666</b>

## 2. Hazards Identification

GHS classification in accordance with : (CAN) WHMIS 2015

<b>Physical hazards</b>	Not classified	
<b>Health hazards</b>	Eye damage/irritation	Category 2A
	Skin corrosion/irritation	Category 2
<b>Environmental hazards</b>	Not classified.	
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



**Signal word**

**Warning**

**Hazard statement**

Causes skin irritation  
Causes serious eye damage

**Precautionary statement**

**Prevention**

Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

**IF ON SKIN:** Wash with plenty of warm water. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Specific treatment (see this label) . If skin irritation occurs :Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

## 3. Composition/Information on Ingredients

**Mixture**

<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
Sodium Silicate		6834-92-0	1 - 5
D-Limonène		5989-27-5	1 – 5

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## 4. First Aid Measures

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<b>Inhalation</b>	Not dangerous
<b>Skin contact</b>	If on skin (or hair): Rinse skin with water/shower. Wash contaminated clothing before reuse. Specific treatment (see product label). Immediately call a poison center/doctor/.
<b>Eye contact</b>	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/doctor.
<b>Ingestion</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor/.
<b>Most important symptoms/effects, acute and delayed</b>	Not available
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

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## 5. Fire Fighting Measures

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<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Use appropriate extinguisher, as surrounding material.
<b>Specific hazards arising from the chemical</b>	Firefighters should wear a self-contained breathing apparatus.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Hazardous combustion products</b>	May include and are not limited to: Carbone dioxyde
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available.
<b>Sensitivity to static discharge</b>	Not available.

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## 6. Accidental Release Measures

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<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Should not be released into the environment.  Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Prevent entry into waterways, sewers, basements or confined areas.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

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## 7. Handling and Storage

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<b>Precautions for safe handling</b>	Use only with adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Avoid breathing vapors or mists of this product. DO NOT get in eyes, on skin or clothing.
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**Conditions for safe storage**

Keep only in the original container. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS).

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## 8. Exposure Controls/Personal Protection

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**Occupational exposure limits****Components**

Sodium silicate  
D-Limonene

**Value**

Exposition limit : 2mg/m<sup>3</sup> ( 15 min TWA)  
165.5 mg/m<sup>3</sup> (MPT)

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Chemical splash goggles.

**Skin protection****Hand protection**

Chemical resistant gloves. Confirm with a reputable supplier first.

**Other**

Wear appropriate chemical resistant clothing. As required by employer code. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.

**Respiratory protection**

Not applicable.

**Thermal hazards**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Wash hands before breaks and immediately after handling the product.

**General hygiene considerations**

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Clear
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid
<b>Color</b>	Clear
<b>Odor</b>	Citrus
<b>Odor threshold</b>	Not available.
<b>pH</b>	11.5 – 12.0
<b>Melting point/freezing point</b>	0 °C
<b>Initial boiling point and boiling range</b>	100 °C
<b>Pour point</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Flash point</b>	> 95 °C
<b>Evaporation rate</b>	Not available
<b>Flammability (solid, gas)</b>	Not applicable.

## Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available
Vapor density	Not available
Relative density	1.01 – 1.02
Solubility(ies)	Complete
Auto-ignition temperature	Not available
Decomposition temperature	Not available.
Viscosity	Not available.

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## 10. Stability and Reactivity

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Reactivity	Strong bases and strong acids. This product may react with oxidizing agents. Hazardous polymerization does not occur.
Possibility of hazardous reactions	
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Reacts with strong bases and strong acids. This product may react with oxidizing agents.
Incompatible materials	
Hazardous decomposition products	Oxidizing agents. Bases May include and are not limited to: Carbon oxide

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## 11. Toxicological Information

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Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

### Information on likely routes of exposure

Ingestion	Causes digestive tract irritation.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics Nothing

### Information on toxicological effects

#### Acute toxicity

Components	Species	Test Results
Sodium silicate		
<b>Acute</b>		
Dermal DL50	Rat	> 5000 mg/kg
Inhalation CL50	Rat	>2.06 g/m <sup>3</sup> (4Heures)
Oral	Rat	3400 mg/kg
D-Limonene		
<b>Acute</b>		
Dermal DL50	Rabbit	> 5000 mg/kg
Inhalation CL50	Rat	4400 mg/kg
Inhalation CL50	Mouse	5600 mg/kg

Skin corrosion/irritation Could skin irritation

Exposure minutes Not available.

Erythema value Not available.

Oedema value Not available.

Serious eye damage/eye irritation Causes eye irritation

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

## Respiratory or skin sensitization

<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Mutagenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Carcinogenicity</b>	None
<b>Reproductive toxicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by WHMIS/OSHA criteria.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.
<b>Further information</b>	Not available.
<b>Name of Toxicologically Synergistic Products</b>	Not available.

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## 12. Ecological Information

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### Ecotoxicity

Components	Species	Test Results
Sodium silicate	Fish (Brachydanio rerio) LC50 (96 hours)	1108 mg/l
	Aquatic invertebrates (Daphnia magna) EC50(48 hour)	1700 mg/l
D-Limonène	Crustacea EC50 Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
	Fish Fathead minnow LC50 (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours

<b>Persistence and degradability</b>	Biodegradable at 100 %.
<b>Bioaccumulative potential</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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## 13. Disposal Consideration

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<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as 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/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	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 instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

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## 14. Transport Information

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### U.S. Department of Transportation (DOT)

#### Basic shipping requirements:

UN number

Proper shipping name Not regulated

Hazard class

Packing group

### Transportation of Dangerous Goods (TDG - Canada)

#### Basic shipping requirements:

UN number

Proper shipping name Not regulated

Hazard class

Packing group

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## 15. Regulatory Information

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### Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

### WHMIS status

Controlled

### WHMIS classification

Class D2B - Materials Causing Other Toxic Effects

### WHMIS labeling



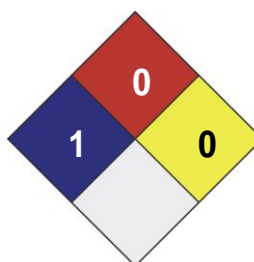
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## 16. Other Information

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LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	B



### Disclaimer

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

### Issue date

May 2, 2018

### Effective date

May 2, 2018

Version 1.0

### Further information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

### Prepared by

Unica Canada inc. Phone Number : (450) 655-8168

### Other information

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

