

SAFETY DATA SHEET

1. Product and Company Identification

| | |
|--------------------------------------|---|
| Product identifier | TOTAL K.O.-STAINLESS STEEL CLEANER |
| Other means of identification | Not available |
| Recommended use | Stainless steel acid cleaner |
| Recommended restrictions | None known. |
| Manufacturer | D.L. INDUSTRIAL SUPPLIES ONTARIO, K0A 1M0 Tel.: 1 888-214-3207 - Cell.: 613 884-3207 www.totalko.ca Emergency Phone only, 24 hours: (613) 996-6666 (CANUTEC) |

2. Hazards Identification

GHS classification in accordance with : (CAN) WHMIS 2015

| | | |
|------------------------------|---------------------------|-------------|
| Physical hazards | Corrosive to metals | Category 1 |
| Health hazards | Eye damage/irritation | Category 1 |
| | Skin corrosion/irritation | Category 1A |
| | Acute Toxicity/inhalation | Category 2 |
| Environmental hazards | Not classified. | |
| OSHA defined hazards | Not classified. | |
| Label elements | | |



Signal word

Danger

Hazard statement

May be corrosive to metals
Causes severe skin burns and eye damage
Fatal if inhaled

Precautionary statement

Prevention

Keep only in original container. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection.

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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. Specific treatment is urgent (see this label). Specific treatment is (see this label). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in a corrosive resistant container or a container with resistant inner liner.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/Information on Ingredients

Mixture

Chemical name

Common name and synonyms

CAS number

%

Sulfuric acid

7664-93-9

15 - 40

2-Butoxyethanol

111-76-2

1 - 5

4. First Aid Measures

| | |
|---|---|
| Inhalation | If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor/. |
| Skin contact | If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Specific treatment (see product label). Immediately call a poison center/doctor/. |
| Eye contact | 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. |
| Ingestion | If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor/. |
| Most important symptoms/effects, acute and delayed | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. Symptoms may be delayed. |
| General information | 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. |

5. Fire Fighting Measures

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

6. Accidental Release Measures

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|--|---|
| Personal precautions, protective equipment and emergency procedures | 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. |
| Methods and materials for containment and cleaning up | 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. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters. |

7. Handling and Storage

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|--------------------------------------|--|
| Precautions for safe handling | 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. |
|--------------------------------------|--|

Conditions for safe storage, including any incompatibilities

Store locked up. Store in corrosive resistant container with a resistant inner liner. 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).

8. Exposure Controls/Personal Protection

Occupational exposure limits

| Components | Value |
|-----------------|--|
| Sulfuric acid | TWA 8 Hr = 1 mg/m ³ , 15 mins STEL = 3mg/m ³ |
| 2-Butoxyethanol | TWA : Maximum concentration : 20 ppm ACGIH |

**Biological limit values
Appropriate engineering
controls**

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

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

**General hygiene
considerations**

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.

9. Physical and Chemical Properties

| | |
|--|-----------------|
| Appearance | Clear |
| Physical state | Liquid. |
| Form | Liquid |
| Color | Clear |
| Odor | Solvent odor |
| Odor threshold | Not available. |
| pH | 1.0 |
| Melting point/freezing point | Not available |
| Initial boiling point and boiling range | Not available |
| Pour point | Not available. |
| Partition coefficient (n-octanol/water) | Not available |
| Flash point | > 94 °C |
| Evaporation rate | Not available |
| Flammability (solid, gas) | 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 | 1.10 – 1.15 |
| Solubility(ies) | Complete |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |

10. Stability and Reactivity

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|---|---|
| Reactivity | Alcalis. This product may react with oxidizing agents. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur. |
| Chemical stability | Stable under recommended storage conditions. |
| Conditions to avoid | Reacts with strong alkaline product This product may react with oxidizing agents. |
| Incompatible materials | Alcalins products |
| Hazardous decomposition products | May include and are not limited to: sulfur oxide. |

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 burns. |
| Inhalation | Prolonged inhalation may be harmful. |
| Skin contact | Causes severe skin burns. |
| Eye contact | Causes serious eye damage. |
| Symptoms related to the physical, chemical and toxicological characteristics | Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. |

Information on toxicological effects**Acute toxicity**

| Components | Species | Test Results |
|-------------------|----------------|------------------------------------|
| Sulfuric acid | | |
| Acute | | |
| Oral LD 50 | Rat | 2140 mg/kg |
| Inhalation LC 50 | Rat | 510 mg/m ³ (2 heures) |
| Dermal | Rabbit | Severe irritant |
| 2-Butoxyethanol | | |
| Acute | | |
| Oral LD50 | Rat | 1300 mg/kg |
| Dermal LD50 | Rat | > 2000 mg/kg |

| | |
|--|--|
| Skin corrosion/irritation | Causes severe skin burns and eye damage. |
| Exposure minutes | Not available. |
| Erythema value | Not available. |
| Oedema value | Not available. |
| Serious eye damage/eye irritation | Causes serious eye damage. |
| Iris lesion value | Not available. |
| Conjunctival reddening value | Not available. |
| Conjunctival oedema value | Not available. |
| Recover days | Not available. |

Respiratory or skin sensitization

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

12. Ecological Information

Ecotoxicity

| Components | Species | Test Results |
|--------------------------------------|---|------------------------------|
| Sulfuric acid | Avoid contaminating waterways | Harmful to aquatic organisms |
| 2-Butoxyethanol | LC50 Fish (Rainbow Trout) (96 hours) | 1474 mg/l |
| | EC50 Daphnia magna (48 hours) | 1550 mg/l |
| | EC50 Algae (72 hours) | 1840 mg/l |
| Persistence and degradability | No data available | |
| Bioaccumulative potential | No data available | |
| Mobility in soil | No data available | |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. | |

13. Disposal Consideration

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| Disposal instructions | 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. |
| Local disposal regulations | Dispose in accordance with all applicable regulations. |
| Hazardous waste code | The waste code should be assigned in discussion between the user, the producer and the waste disposal company. |
| 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 instructions). |
| Contaminated packaging | 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. |

14. Transport Information

General Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number UN 2796
Proper shipping name Sulphuric acid, with not more than 51 % acid
Hazard class 8
Packing group II

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number UN 2796
Proper shipping name Sulphuric acid, with not more than 51 % acid
Hazard class 8
Packing group II

15. Regulatory Information

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.

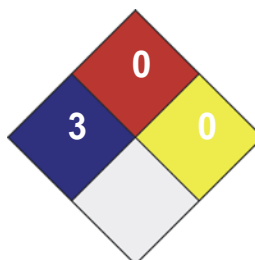
WHMIS status Controlled
WHMIS classification Class E - Corrosive Material
WHMIS labeling



16. Other Information

| LEGEND | |
|----------|---|
| Severe | 4 |
| Serious | 3 |
| Moderate | 2 |
| Slight | 1 |
| Minimal | 0 |

| | |
|----------------------------|-----|
| HEALTH | / 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |
| PERSONAL PROTECTION | D |



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.

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Effective date January 31, 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).

