



Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	CLASS D-2B: Material causing other toxic effects (TOXIC).	Class: Irritating substance.
WHMIS (Pictograms)	WHMIS (Classification)	HCS

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	Citrus Chisel (1:64 Dilution)	Code	167 Diluted Only
Synonym	Natural Citrus Cleaner/Degreaser	CAS #	Not applicable.
Chemical Family	Not available.	Validation Date	3/2/2010
Chemical Formula	Not applicable.	Print Date	3/3/2010
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (419) 241-2156	In Case of Emergency	Chemtrec (800) 424-9300
TSCA	TSCA Inventory: All components listed or are exempt from listing.		
DSL/ NDSL	All components listed unless noted elsewhere on this MSDS		
		Protective Clothing 	

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC ₅₀ /LD ₅₀
Water	7732-18-5	>95	Not available.	Not available.
Sodium Metasilicate	6834-92-0	<1	Not available.	Not available.
Tetrasodium salt of ethylenediaminetetraacetic acid	64-02-8	<1	Not available.	ORAL (LD50): Acute: 3030 mg/kg [Rat].
Nonionic Surfactant	9016-45-9	<1	Not available.	Not available.
Cationic Surfactant	5197-80-8	<1	Not available.	Not available.
Nonionic Surfactant	61788-90-7	<1	Not available.	ORAL (LD50): Acute: 4610 mg/kg [Rat].
Perfume Oil	N/A	<1	Not available.	Not available.
Dye	N/A	<1	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects	This product may irritate eyes and skin upon contact. Harmful if swallowed.
Potential Chronic Health Effects	Over-exposure by inhalation may cause respiratory irritation.
Carcinogenic Effects	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water. Seek immediate medical attention.
Skin Contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Inhalation	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration., preferably mouth to mouth if possible.
Ingestion	Call a poison control center immediately for treatment advice. Have person sip a glass of water if able to swallow. Do NOT induce vomiting unless instructed to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Section 5. Fire Fighting Measures

Products of Combustion Not available.

Fire Fighting Media and Instructions N/A

Special Remarks on Fire Hazards N/A

Special Remarks on Explosion Hazards N/A

Section 6. Accidental Release Measures

Small Spill and Leak Absorb with an inert material and place in an appropriate waste disposal container.

Large Spill and Leak Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Personal Protection in Case of a Large Spill Safety glasses. Boots. Gloves.

Section 7. Handling and Storage

Precautions Keep out of the reach of children. After handling, always wash hands thoroughly with soap and water.

Incompatibility Strong acids.

Storage Keep out of the reach of children. Not for use or storage in or around the home.

Section 8. Exposure Controls/Personal Protection

Engineering Controls Good general ventilation should be sufficient to control airborne levels.

Personal Protection

Eyes Contact with the concentrated solution is unlikely when using through a dilution control system. Eye protection should be worn in operations where splashing may occur.

Body No special protective clothing is required.

Respiratory A respirator is not needed under normal and intended conditions of product use.

Hands Skin contact with concentrate is unlikely when using through a dilution control system. Persons with sensitive skin or existing skin conditions should wear nitrile gloves when using this product.

Protective Clothing (Pictograms)



Exposure Limits Not available.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.	Odor	Pleasant.
Molecular Weight	Not applicable.	Taste	Not available.
pH	11 to 11.5 [Basic.]	Color	Orange.
Boiling/Condensation Point	212°F initial		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Instability Temperature	Not available.		
Specific Gravity	1.07 (Water = 1)		
Vapor Pressure	Not Determined		
Vapor Density	>1 (Air = 1)		
Volatility	>85%		
VOC	Negligible		
Evaporation Rate	(Water=1):<1		
Dispersion Properties	See solubility in water.		
Solubility	Easily soluble in cold water.		
The Product is:	Non-flammable.		
Auto-ignition Temperature	Not available.		
Flash Points	None to Boiling (TCC)		
Flammable Limits	Not Applicable		
Fire Hazards in Presence of Various Substances	Non-flammable.		
Explosion Hazards in Presence of Various Substances	Not Applicable		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Strong acids.
Hazardous Decomposition Products	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Eye Contact Ingestion. INHALATION Skin contact.
Toxicity to Animals	Acute oral toxicity (LD50): 3030 mg/kg [Rat]. (Tetrasodium EDTA).
Acute Effects on Humans	<p><i>Eyes</i> Irritant. Inflammation of the eye is characterized by redness, watering, and itching.</p> <p><i>Skin</i> Skin irritant. May cause redness or swelling. Prolonged or repeated contact may cause dermatitis.</p> <p><i>Inhalation</i> Slightly irritating to the respiratory system.</p> <p><i>Ingestion</i> Irritating to the mouth, throat, and gastrointestinal system. Large doses may cause vomiting and diarrhea.</p>
Chronic Effects on Humans	Over-exposure by inhalation may cause respiratory irritation.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	No additional remark.

Section 12. Ecological Information

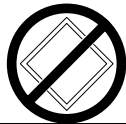
Ecotoxicity	Not Available
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

Section 14. Transport Information

**DOT (U.S.A)
(Pictograms)**



TDG Classification Not a TDG controlled material.



PIN UN, Proper Shipping Name, PG

Maritime Transportation Not available.

Special Provisions for Transport Not available.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) CLASS D-2B: Material causing other toxic effects (TOXIC).



Regulatory Lists No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications HCS (U.S.A.) Class: Irritating substance.

USA Regulatory Lists

SARA 311/312: Sodium Metasilicate
SARA 313: No components were found.

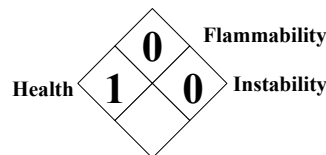
DSD (EEC) This product is not classified according to the EU regulations.

International Regulations Lists No products were found.

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	0
Physical Hazard	0

National Fire Protection Association (U.S.A.)



The Hazard Ranking systems presented on this MSDS provide only a quick reference for hazard information. The ENTIRE MSDS must be consulted to determine any specific hazards, First Aid measures, and PPE associated with this product.

Section 16. Other Information

Validated by CRushton on 10/20/2008.

Verified by CRushton.

Printed 10/20/2008.

Information Contact Betco Corporation
1001 Brown Avenue
Toledo, Ohio 43607

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Validated on 10/20/2008.

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