

SECTION 1: IDENTIFICATION

(a) PRODUCT IDENTIFIER:	(b) OTHER MEANS OF IDENTIFICATION:
Surface Prep 77	

(c) **Recommended Use:** Degreaser and Cleaner

Restrictions On Use: Not to be used for anything other than recommended use.



(d) **Distributed By:** Electromark • 6555 W. Good Hope Road, Milwaukee, WI 53201 USA • (800) 541-1686

Manufactured By: CustomPAK • 885 W. Smith Road, Medina, Ohio 44256 USA • (330) 725-0800

(e) **24 HR EMERGENCY ASSISTANCE PHONE NUMBER:** (800) 535-5053 (InfoTrac)

SECTION 2: HAZARDS IDENTIFICATION

The categories of Health Hazards as defined in OSHA 29 CFR 1910.1200 Hazard Communication Standard have been evaluated and are listed below. Refer to Sections 3, 8, and 11 for additional information.

Hazard Classification	(a) Hazard Category	(b) Hazard Symbols	(b) Signal Word	(b) Hazard Statement	(b) Precautionary Statement
Human Health Hazards					
Acute Toxicity (Oral)	N/C	-	-	-	-
Acute Toxicity (Dermal)	N/C	-	-	-	-
Acute Toxicity (Inhalation)	N/C	-	-	-	-
Skin Corrosion/Irritation	2		Warning	Causes skin irritation	Wear protective gloves
Eye Damage/Irritation	2A		Warning	Causes serious eye irritation	Wear eye protection
Respiratory Sensitization	N/C	-	-	-	-
Skin Sensitization	N/C	-	-	-	-
Germ Cell Mutagenicity	N/C	-	-	-	-
Carcinogenicity	N/C	-	-	-	-
Reproductive Toxicity	N/C	-	-	-	-
Specific Target Organ Toxicity (STOT) Single-Exposure	N/D	-	-	-	-
Specific Target Organ Toxicity (STOT) Repeated or Prolonged Exposure	N/D	-	-	-	-
Aspiration Hazard	N/D	-	-	-	-

Hazard Classification	Hazard Category	Hazard Symbols	Signal Word	Hazard Statement	Precautionary Statement
Physical Hazards					
Explosives	N/C	-	-	-	-
Flammable Gases	N/C	-	-	-	-
Flammable Aerosols	N/C	-	-	-	-
Oxidizing Gases	N/C	-	-	-	-
Gases Under Pressure	N/C	-	-	-	-
Flammable Liquids	N/C	-	-	-	-
Flammable Solids	N/C	-	-	-	-
Self-reactive Substances and Mixtures	N/C	-	-	-	-
Substances and mixtures which react with water to emit flammable gases	N/C	-	-	-	-
Oxidizing Liquids	N/C	-	-	-	-
Oxidizing Solids	N/C	-	-	-	-
Organic Peroxides	N/C	-	-	-	-
Corrosive to Metals	N/C	-	-	-	-

(c) Hazards not otherwise classified: None identified.

(d) Unknown acute toxicity: Approximately 5% of this mixture consists of ingredients of unknown dermal and inhalational toxicity.

Medical conditions which are generally recognized as being aggravated by exposure:

Populations with chronic respiratory, skin, or eye disease are at increased risk from exposure.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS			
(a) Chemical name (b) (Common name and synonyms)	(c) CAS No.	(c) EC No.	(b) % Weight
Water	7732-18-5	231-791-2	91.44
Butoxyethanol (ethylene glycol monobutyl ether, butyl cellosolve)	111-76-2	203-905-0	3.95
Alcohols, C9-11, ethoxylated	68439-46-3	NA	2.19
Sodium Metasilicate (disodium metasilicate)	6834-92-0	229-912-9	1.01
Tetrasodium Pyrophosphate (TSPP)	7722-88-5	231-767-1	1.01
Sodium Hydroxide (caustic soda)	1310-73-2	215-185-5	0.20
Tetrasodium EDTA	64-02-8	200-573-9	0.20

SECTION 4: FIRST AID MEASURES**(a) Description of necessary measures:****Emergency Medical advice is available from**

INHALATION:	Move to fresh air immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
INGESTION:	Rinse mouth and drink plenty of water or milk. Do not induce vomiting. If vomiting occurs, keep head low. Seek medical help immediately.
SKIN CONTACT:	Take off contaminated clothing and wash it before reuse. If on skin: Wash with plenty of water and mild soap. If skin irritation occurs, get medical advice/attention.
EYE CONTACT:	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists seek medical attention.

(b) Most important symptoms/effects:

- **Acute:** Eye irritation. Headache, drowsiness, loss of mental alertness, dizziness, nausea.
- **Delayed:** Dry skin and possible irritation with repeated or prolonged exposure.

(c) Indication of immediate medical attention and special treatment: Significant over-exposure.

Notes to physician: Treat symptomatically and supportively.

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5: FIRE FIGHTING MEASURES

(a) Suitable extinguishing media: Dry chemical, carbon dioxide, water spray or alcohol resistant foam.

Unsuitable extinguishing media: None identified.

(b) Specific hazards arising from the chemical: None identified.

(c) Special protective equipment and precautions for fire-fighters: Keep personnel upwind from fire. Fire fighters should use appropriate SCBA while in close proximity to fire and vapors coming from product. Move personnel upwind of any smoke or vapors. In the event of fire and/or explosion, do not breathe fumes.

(d) Flammability/Explosivity: Flash point: 178 °F / 81 °C
LFL/LEL: Not established
UFL/UEL: Not established

(e) Hazardous Decomposition Products: Not known to support combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

(a) Personal precautions, Protective equipment, and Emergency procedures: Caution – Area may be slippery. Avoid inhalation of vapors and spray mist. Avoid contact with skin and eyes. Wear appropriate PPE including respiratory protection as needed.

(b) Methods and materials for containment and cleaning up: Stop flow of product, if it is safe to do so. Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended if possible. Dike the spilled material. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water, remove with appropriate methods (e.g., skimming, booms, or absorbent boom). In the case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations. Recommended measures are based on the most likely spill scenarios for this material; however, local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

Environmental Precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If product impacts rivers, lakes, drains, or any other body of water, contact appropriate authorities.

SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling: Keep container tightly closed when not in use. Avoid freezing and excessive heat. Keep out of reach of children. If Surface Prep 77 freezes, thaw and shake bottle vigorously. Surface Prep 77 should then be back to full potency. Do not eat, drink, or smoke when using this product. Do not breathe vapors or mists. Use only outdoors or in well-ventilated area. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

(b) Conditions for safe storage, including any incompatibilities: Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas. Protect containers against physical damage. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Limits:**

Components	(a) OSHA PEL ¹	(a) ACGIH TLV ²	(a) Manufacturer REL ³	(a) IDLH ⁴
Butoxyethanol	50 ppm	25 ppm	N/E	700 ppm
Alcohols, C9-11, ethoxylated	N/E	N/E	N/E	N/E
Sodium Metasilicate	N/E	N/E	2 mg/m ³	N/E
Tetrasodium Pyrophosphate	N/E	N/E ⁵	N/E	N/E

Notes:

1. OSHA PEL are 8-hour TWA (Time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday.
2. Threshold Limit Values – TWA established by the ACGIH represents the TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effect; Short-Term Exposure Limit (TLV-STEL) represents a 15-minute TWA exposure that should not be exceeded at any time during a work day. ACGIH TLV's are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
3. The exposure limits developed by the manufacturer are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
4. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of a respiratory selection criteria.
5. TLV withdrawn due to insufficient data.

(b) Appropriate engineering controls: Provide adequate general and local ventilation to maintain airborne chemical concentrations below applicable exposure limits. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Eye/face protection: Wear approved safety glasses/goggles with side shields and/or an appropriate full-face shield. All eye protection should be selected and worn in accordance with the OSHA eye and face protection guidelines outlined in 29 CFR 1910.132 and 1910.133.

Skin Protection: Wear appropriate clothing to prevent skin contact. Thoroughly decontaminate any articles of clothing that come into contact with product. The use of gloves is advised to prevent skin exposure and contact. Users should check with manufacturers to confirm the breakthrough performance of their products. All PPE should be selected and worn in accordance with 29 CFR 1910.132 and 1910.138.

Respiratory protection: All respirators should be selected and worn in accordance with 29 CFR 1910.132 and 1910.134.

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. Eye-wash and quick-drench shower facilities should be available in the work area.

General: Wear chemical protective equipment. Launder contaminated clothing before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties	
	Solution:
(a) Appearance:	Clear liquid
(b) Odor:	Solvent odor
(c) Odor Threshold:	
(d) pH:	Approximately 12.7
(e) Melting point/Freezing point:	32 °F; 0 °C
(f) Boiling point/range:	212 °F; 100 °C
(g) Flash Point:	None (see above?)
(h) Evaporation rate:	
(i) Flammability:	
(j) UFL/LFL or UEL/LEL:	
(k) Vapor pressure:	18
(l) Vapor density:	> 1
(m) Relative density:	
(n) Solubility:	Complete in water
Fat Solubility	
Other Solubilities	
(o) Partition coefficient:	
(p) Auto-ignition temperature:	
(q) Decomposition temperature:	
(r) Viscosity:	
(s) Specific Gravity:	1.016

SECTION 10: STABILITY AND REACTIVITY

- (a) **Reactivity:** No data available
- (b) **Chemical stability:** Material is stable under normal conditions.
- (c) **Possibility of hazardous reactions:** Hazardous polymerization will not occur.
- (d) **Conditions to avoid (e.g., static discharge, shock, or vibration):** Excess heat, incompatible materials.
- (e) **Incompatible materials:** Strong oxidizing agents.
- (f) **Hazardous decomposition products:** carbon dioxide, carbon monoxide.
- (g) **Hazardous Polymerization:** Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION**(a) Information on likely routes of exposure:**

- **Inhalation:** causes irritation of upper respiratory tract; central nervous system stimulation followed by depression of varying degrees ranging from dizziness, headache, and incoordination
- **Accidental Ingestion:** causes irritation of mucous membranes of throat, esophagus, and stomach.
- **Skin contact:** May cause skin irritation.
- **Eye contact:** May cause serious irritation.

(b) Symptoms related to physical, chemical and toxicological characteristics: Skin or eye contact may cause irritation.**(c) Delayed and immediate effects and also chronic effects from short- and long-term exposure:**
Chronic skin exposures can lead to dermatitis.**(d) Numerical measures of toxicity:****Acute Toxicity (Oral)**

Chemical	Tested % Weight	Model	LD ₅₀ Range (mg/kg bw)	Reference
Butoxyethanol	100%	Rat	250 -1,500	RTECS, 2009
Alcohols, C9-11, ethoxylated	100%	Rat	1,400	Gingell and Lu, 1991
Sodium Metasilicate	100%	Rat	1,280	HSDB, 2014
Tetrasodium Pyrophosphate	100%	Rat	4,000	RTECS, 2009

Acute Toxicity (Dermal)

Chemical	Tested % Weight	Model	LD ₅₀ Range (mg/kg bw)	Reference
Butoxyethanol	100%	Rabbit	500 – 2,000	SIDS, 2006
Alcohols, C9-11, ethoxylated	100%	Rabbit	>2,000	Gingell and Lu, 1991
Sodium Metasilicate			No data available	
Tetrasodium Pyrophosphate			No data available	

Acute Toxicity (Inhalation)

Chemical	Tested % Weight	Model	LD ₅₀ Range (mg/l vapors)	Reference
Butoxyethanol	100%	Rat	2.45	SIDS, 2006
Alcohols, C9-11, ethoxylated			No data available	
Sodium Metasilicate			No data available	
Tetrasodium Pyrophosphate			No data available	

Skin Damage/Irritation

Chemical	Tested	Model	Symptom	Reference
Butoxyethanol	500 mg	Rabbit	Mild irritation	RTECS, 2009
Alcohols, C9-11, ethoxylated	100%	Rabbit	Severely irritating	Gingell and Lu, 1996
Alcohols, C9-11, ethoxylated			Not expected to produce skin irritation at concentrations used in formulated cleaning products.	Gingell and Lu, 1996
Sodium Metasilicate	66% solution	Rabbit	Corrosive	IUCLID, 2000
Tetrasodium Pyrophosphate			No data available	

Eye Damage/Irritation

Chemical	Tested	Model	Symptom	Reference
Butoxyethanol	100 mg	Rabbit	Moderate to Severe	RTECS, 2009
Alcohols, C9-11, ethoxylated			No data available	
Sodium Metasilicate		rabbit	Estimated that solutions > 10% are corrosive to the eye	IUCLID, 2000
Tetrasodium Pyrophosphate			No data available	

Respiratory Sensitization

Chemical	Tested % Weight	Model	Symptom	Reference
Butoxyethanol		Humans	No sensitization properties	SIDS, 2006
Alcohols, C9-11, ethoxylated			No data available	
Sodium Metasilicate			Not sensitizing	IUCLID, 2000
Tetrasodium Pyrophosphate			No data available	

Skin Sensitization

Chemical	Tested % Weight	Model	Symptom	Reference
Butoxyethanol		Humans	No sensitization properties	SIDS, 2006
Alcohols, C9-11, ethoxylated	1% w/v	NA	Not a skin sensitizer	Gingell and Lu, 1991
Sodium Metasilicate			Not sensitizing	IUCLID, 2000
Tetrasodium Pyrophosphate			No data available	

Germ Cell Mutagenicity

Chemical	Tested % Weight	Model	Symptom	Reference
Butoxyethanol		Ames	Negative	SIDS, 2004
Alcohols, C9-11, ethoxylated		Ames	Negative	Gingell and Lu, 1991
Sodium Metasilicate		Various	No evidence of genotoxic potential	SIDS, 2004
Tetrasodium Pyrophosphate			No data available	

Carcinogenicity

Compound	ACGIH	IARC	NTP
Butoxyethanol	A3: Confirmed animal	Group 3 - Not classified	Not listed

	carcinogen with unknown relevance to humans		
Alcohols, C9-11, ethoxylated	Not classified	Not classified	Not listed
Sodium Metasilicate	Not classified	Not classified	Not listed
Tetrasodium Pyrophosphate	Not classified	Not classified	Not listed

Reproductive Toxicity				
Chemical	Tested % Weight	Test	Result	Reference
Butoxyethanol		Various	Negative	SIDS, 2006
Alcohols, C9-11, ethoxylated		Rats	No compound-related effects on the reproductive performance or on the growth and development of the offspring were detected.	Gingell and Lu, 1991
Sodium Metasilicate			In repeat dose toxicity studies with rats, mice and dogs the macroscopic and microscopic examination of reproductive organs did not reveal treatment-related effects.	SIDS, 2004
Tetrasodium Pyrophosphate			No data available	

Specific Target Organ Toxicity (STOT) – Single exposure				
Chemical	Route/organism	Dose	Effect	Reference
Butoxyethanol			No Data available	
Alcohols, C9-11, ethoxylated			No Data available	
Sodium Metasilicate			No Data available	
Tetrasodium Pyrophosphate			No data available	

Specific Target Organ Toxicity (Repeated Exposure)				
Chemical	Tested	Test	Result	Reference
Butoxyethanol			No Data available	
Alcohols, C9-11, ethoxylated			No Data available	
Sodium Metasilicate		NOAEL (90d)	227 – 237 mg/kg bw/d	SIDS, 2004
Tetrasodium Pyrophosphate			No data available	

Aspiration Hazard				
Chemical	Tested % Weight	Kinematic Viscosity	Assessment	Reference
Butoxyethanol			No Data Available	
Alcohols, C9-11, ethoxylated			No Data Available	
Sodium Metasilicate			No Data Available	
Tetrasodium Pyrophosphate			No Data Available	

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: Data not available.

ENVIRONMENTAL FATE: Data not available.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose waste in accordance with the federal, state, and local laws and regulations.

Containers should be completely used and emptied prior to discarding.

SECTION 14: TRANSPORT INFORMATION

This Product is not regulated.

SECTION 15: REGULATORY INFORMATION

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

CERCLA/SARA-Section 302: No extremely hazardous substances.

CERCLA/SARA-Section 311/312 (Title III Hazard Categories)

Acute Health	Yes
Chronic Health	No
Fire Hazard	No
Pressure Hazard	No
Reactive Hazard	No

US EPCRA (SARA Title III) Section 313-This product contains ~4% 2-butoxyethanol which is part of a chemical category (glycol ethers); therefore, reporting may be required under section 313.

CERCLA (Superfund) reportable quantity (lbs.): This product contains 2-butoxyethanol which, despite being part of a broad chemical category (glycol ethers) on the CERCLA hazardous substance list, does not itself have a reportable quantity.

California Proposition 65: This product is not subject to the reporting requirements under California Proposition 65.

National Chemical Inventories:

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.

All components are either on the DSL, or are exempt from DSL listing requirements.

SECTION 16: OTHER INFORMATION

This Safety Data Sheet (SDS) is authored pursuant to the OSHA Hazard Communication/HazCom 2012 Final Rule.

REVISED DATE: 8/15/2015

COMMON TERMS AND ACRONYMS:

ACGIH:	American Conference of Governmental Industrial Hygienists
C:	Ceiling Limit
CAS#:	Chemical Abstracts System Number
CERCLA:	Comprehensive Environmental Response, Compensation, and Liability Act
DOT:	Department of Transportation
DSL:	Domestic Substance List
EC₅₀:	Effective concentration that inhibits the endpoint to 50% of control population
EINECS:	European List of Notified Chemical Substances
EPA:	U.S. Environmental Protection Agency
ESIS:	European Chemical Substances Information System
HMIS:	Hazardous Materials Identification System
IARC:	International Agency for Research on Cancer
IDLH:	Immediately Dangerous to Life and Health
IATA:	International Air Transport Association
IMDG:	International Maritime Dangerous Goods
LC₅₀:	Concentration of air resulting in death to 50% of experimental animals
LD₅₀:	Administered dose resulting in death to 50% of experimental animals
LEL:	Lower Explosive Limit
N/A:	Not available or Not applicable
N/C:	Not Classified
N/D:	No Data Available
N/E:	Not Established
NFPA:	National Fire Protection Association
NIOSH:	National Institute for Occupational Safety and Health
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limit
PPE :	Personal Protective Equipment
RCRA:	Resource Conservation and Recovery Act
SARA:	Superfund Amendments and Reauthorization Act
STEL:	Short Term Exposure Limit
STP:	Standard Temperature and Pressure
TLV:	Threshold Limit Value
TSCA:	Toxic Substances Control Act
TWA:	Time Weighted Average
UEL:	Upper Explosive Limit
WHMIS:	Workplace Hazardous Materials Information System

Disclaimer:



The above information is based on data of which Electromark is aware and is believed to be correct as of the date hereof. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the result of its use. This information furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his own particular purpose and use.