

Material Safety Data Sheet

Ultra Clean



1. Product and company identification

Product name : Ultra Clean
Material uses : This concentrated, high alkaline cleaner/stripper is specially formulated to remove grease, oil based dirt and stains from neglected tile and grout surface.
Supplier/Manufacturer : Modern Stone Technologies
 2225 W. Pecos Rd. Suite 12
 Chandler, Az. 85224
 Toll free : 1-866-868-0810
 support@modernstonecare.com
 Fax : (480) 969-1978

In case of emergency : CHEMTREC International: +1(703) 527-3887

2. Hazards identification

Emergency overview

Physical state : Liquid.
Color : Green.
Odor : Mild.
Signal word : DANGER!
Hazard statements : MAY BE FATAL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Precautionary measures : Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : Corrosive to the respiratory system.
Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.
Skin : Corrosive to the skin.
Eyes : Corrosive to eyes. Causes burns.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.
Target organs : Contains material which causes damage to the following organs: blood, kidneys, lungs, liver, lymphatic system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

2. Hazards identification

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Ingestion** : Adverse symptoms may include the following:
stomach pains
- Skin** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
- Eyes** : Adverse symptoms may include the following:
pain
watering
redness
- Medical conditions aggravated by over-exposure** : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to the substance can produce target organs damage.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
2-Aminoethanol	141-43-5	>1
Potassium hydroxide	1310-58-3	>1
2-Butoxyethanol	111-76-2	>1

Canada

Name	CAS number	%
2-Aminoethanol	141-43-5	>1
Potassium hydroxide	1310-58-3	>1
2-Butoxyethanol	111-76-2	>1

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
2-Aminoethanol	141-43-5	UN2491	>1	30 ppm	3	1	0	-
Potassium hydroxide	1310-58-3	UN1813	>1	-	3	0	0	-
2-Butoxyethanol	111-76-2	UN2810	>1	700 ppm	1	2	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Immediately flush eyes with plenty of water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Call medical doctor or poison control center immediately. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Call medical doctor or poison control center immediately. Get medical attention immediately.

4. First aid measures

- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call medical doctor or poison control center immediately.
- Protection of first-aiders** : If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Hazardous decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Empty containers retain product residue and can be hazardous.

7. Handling and storage

Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
2-Aminoethanol	<p>ACGIH TLV (United States, 2/2010). STEL: 15 mg/m³ 15 minute(s). STEL: 6 ppm 15 minute(s). TWA: 7.5 mg/m³ 8 hour(s). TWA: 3 ppm 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009). STEL: 15 mg/m³ 15 minute(s). STEL: 6 ppm 15 minute(s). TWA: 8 mg/m³ 10 hour(s). TWA: 3 ppm 10 hour(s).</p> <p>OSHA PEL (United States, 6/2010). TWA: 6 mg/m³ 8 hour(s). TWA: 3 ppm 8 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 3 ppm 8 hour(s). TWA: 8 mg/m³ 8 hour(s). STEL: 6 ppm 15 minute(s). STEL: 15 mg/m³ 15 minute(s).</p>
Potassium hydroxide	<p>ACGIH TLV (United States, 2/2010). C: 2 mg/m³</p> <p>NIOSH REL (United States, 6/2009). TWA: 2 mg/m³ 10 hour(s).</p> <p>OSHA PEL 1989 (United States, 3/1989). CEIL: 2 mg/m³</p>
2-Butoxyethanol	<p>ACGIH TLV (United States, 2/2010). TWA: 20 ppm 8 hour(s).</p> <p>NIOSH REL (United States, 6/2009). Absorbed through skin. TWA: 24 mg/m³ 10 hour(s). TWA: 5 ppm 10 hour(s).</p> <p>OSHA PEL (United States, 6/2010). Absorbed through skin. TWA: 240 mg/m³ 8 hour(s). TWA: 50 ppm 8 hour(s).</p>

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
2-Aminoethanol	US ACGIH 2/2010	3	7.5	-	6	15	-	-	-	-	[3]
	AB 4/2009	3	7.5	-	6	15	-	-	-	-	
	BC 9/2010	3	-	-	6	-	-	-	-	-	
	ON 7/2010	3	7.5	-	6	15	-	-	-	-	
	QC 6/2008	3	7.5	-	6	15	-	-	-	-	
Potassium hydroxide	US ACGIH 2/2010	-	-	-	-	-	-	-	2	-	[3]
	AB 4/2009	-	-	-	-	-	-	-	2	-	
	BC 9/2010	-	-	-	-	-	-	-	2	-	
	ON 7/2010	-	-	-	-	-	-	-	2	-	
	QC 6/2008	-	-	-	-	2	-	-	-	-	
2-Butoxyethanol	US ACGIH 2/2010	20	-	-	-	-	-	-	-	-	[3]
	AB 4/2009	20	97	-	-	-	-	-	-	-	
	BC 9/2010	20	-	-	-	-	-	-	-	-	
	ON 7/2010	20	-	-	-	-	-	-	-	-	
	QC 6/2008	20	97	-	-	-	-	-	-	-	

[1]Absorbed through skin. [3]Skin sensitization

8. Exposure controls/personal protection

Mexico

Occupational exposure limits

Ingredient	Exposure limits
2-Aminoethanol	NOM-010-STPS (Mexico, 9/2000). LMPE-CT: 15 mg/m ³ 15 minute(s). LMPE-CT: 6 ppm 15 minute(s). LMPE-PPT: 8 mg/m ³ 8 hour(s). LMPE-PPT: 3 ppm 8 hour(s).
Potassium hydroxide	ACGIH TLV (United States, 2/2010). C: 2 mg/m ³
2-Butoxyethanol	NOM-010-STPS (Mexico, 9/2000). Absorbed through skin. LMPE-CT: 360 mg/m ³ 15 minute(s). LMPE-CT: 75 ppm 15 minute(s). LMPE-PPT: 120 mg/m ³ 8 hour(s). LMPE-PPT: 26 ppm 8 hour(s).

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Personal protection

- Respiratory** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Ensure an MSHA/NIOSH-approved respirator or equivalent is used.
- Hands** : Use gloves appropriate for work or task being performed. Recommended: Nitrile gloves.
- Eyes** : Safety eyewear should be used when there is a likelihood of exposure. Recommended: Chemical splash goggles or face shield.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Rubber apron and/or long sleeves.
- Environmental exposure controls** : In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

- Physical state** : Liquid.
- Color** : Green.
- Odor** : Mild.
- Boiling/condensation point** : >100°C (>212°F)
- Melting/freezing point** : 0°C (32°F)
- Relative density** : >1
- Vapor density** : >1 [Air = 1]
- Evaporation rate** : <1 (butyl acetate = 1)

9. Physical and chemical properties

Solubility : Easily soluble in the following materials: cold water and hot water.

10. Stability and reactivity

Chemical stability : The product is stable.

Conditions to avoid : No specific data.

Incompatible materials : Highly reactive or incompatible with the following materials: acids and moisture.
Reactive or incompatible with the following materials: oxidizing materials and alkalis.

Hazardous decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Aminoethanol	LD50 Oral	Rat	1720 mg/kg	-
Potassium hydroxide	LD50 Oral	Rat	273 mg/kg	-
2-Butoxyethanol	LC50 Inhalation Vapor	Rat	450 ppm	4 hours
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Aminoethanol	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Moderate irritant	Rabbit	-	-	-
Potassium hydroxide	Eyes - Moderate irritant	Rabbit	-	-	-
	Skin - Severe irritant	Rabbit	-	-	-

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
2-Butoxyethanol	A3	3	-	-	-	-

IDLH : Not available.

Synergistic products : Not available.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
2-Aminoethanol	Acute LC50 >100000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 150 mg/L Fresh water	Fish - Oncorhynchus mykiss - Yolk-sac fry	96 hours
Potassium hydroxide	Acute LC50 80000 ug/L Fresh water	Fish - Gambusia affinis - Adult	96 hours
2-Butoxyethanol	Acute EC50 >1000 mg/L Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours
	Acute LC50 800000 to 1000000 ug/L Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 1250000 ug/L Marine water	Fish - Menidia beryllina - 40 to 100 mm	96 hours
	Chronic NOEC 1000 mg/L Fresh water	Daphnia - Daphnia magna - <24 hours	48 hours

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations






Waste disposal : Dispose material in accordance with all local, state, and federal regulations.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide) ORM-D Consumer Commodity. Please refer to 49 CFR 173.54, 203, .241 for details.	8	III		-
TDG Classification	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide)	8	III		-
Mexico Classification	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide)	8	III		-
IMDG Class	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide)	8	III		-
IATA-DGR Class	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide)	8	III		-

PG* : Packing group

Exemption to the above classification may apply.

AERG : 153

15. Regulatory information

United States

HCS Classification : Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations : **TSCA 8(a) IUR Exempt/Partial exemption:** Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: 2-Aminoethanol; Potassium hydroxide; 2-Butoxyethanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Aminoethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Potassium hydroxide: Immediate (acute) health hazard, Delayed (chronic) health hazard; 2-Butoxyethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

15. Regulatory information

Clean Water Act (CWA) 311: Potassium hydroxide

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	2-Butoxyethanol	111-76-2	>1
Supplier notification	2-Butoxyethanol	111-76-2	>1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: 2-Aminoethanol; Potassium hydroxide; 2-Butoxyethanol

New York : The following components are listed: Potassium hydroxide

New Jersey : The following components are listed: 2-Aminoethanol; Potassium hydroxide; 2-Butoxyethanol

Pennsylvania : The following components are listed: 2-Aminoethanol; Potassium hydroxide; 2-Butoxyethanol

California Prop. 65

No products were found.

Canada

WHMIS (Canada) : Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class E: Corrosive material

Canadian lists

Canadian NPRI : The following components are listed: 2-Butoxyethanol

CEPA Toxic substances : The following components are listed: 2-butoxyethanol

Canada inventory : All components are listed or exempted.

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

Mexico

Classification :



International regulations

15. Regulatory information

- International lists**
- : **Australia inventory (AICS):** All components are listed or exempted.
 - : **China inventory (IECSC):** All components are listed or exempted.
 - : **Japan inventory:** All components are listed or exempted.
 - : **Korea inventory:** All components are listed or exempted.
 - : **New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
 - : **Philippines inventory (PICCS):** All components are listed or exempted.

16. Other information

- Label requirements** : MAY BE FATAL IF INHALED. CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

- Hazardous Material Information System (U.S.A.)** : **Health :** 3 * **Flammability :** 0 **Physical hazards :** 0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

- National Fire Protection Association (U.S.A.)** : **Health :** 3 **Flammability :** 0 **Instability :** 0

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Canada

WHMIS (Canada)



History

- Date of issue mm/dd/yyyy** : 07/15/2011
- Date of previous issue** : 07/28/2006
- Version** : 2

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.