

OptiShield Grout MD

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: OptiShield Grout MD
Common Name: Alkaline Cleaner
SDS Number: 120667-SDS
Product Code: 120667
Revision Date: 8/13/2025
Version: 1
Product Use: Use only as directed
Instructions: Professional Use Only

Supplier Details: EXTRACTION ZONE
PO Box 262
Strasburg, CO 80136

Contact: Customer Service
Phone: 720.374.2375
Web: www.extractionzone.com
Emergency: Infotrac 1-800-535-5053 (North America) 1-352-323-3500 (International)

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

Health, Skin corrosion/irritation, 2
Health, Serious Eye Damage/Eye Irritation, 1
Environmental, Hazards to the aquatic environment - Acute, 3

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H315 - Causes skin irritation
H318 - Causes serious eye damage
H402 - Harmful to aquatic life

GHS Precautionary Statements:

P234 - Keep only in original container.
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 - Wash skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 - If skin irritation occurs: Get medical advice/ attention.
P337 + P313 - If eye irritation persists: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before reuse.
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.



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P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/ container to an approved waste disposal plant.

3 COMPOSITION/INFORMATION OF INGREDIENTS

This material is considered hazardous by the OSHA Hazardous Communication Standard (29 CFR 1910.1200)

Chemical Ingredients

CAS#	%	Chemical Name
111-76-2	1-6%	2-Butoxyethanol
1310-73-2	1-4%	Sodium hydroxide

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4 FIRST AID MEASURES

- Inhalation:** If symptoms develop, move victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, obtain medical attention.
- Skin Contact:** Promptly flush skin with water for at least 15 minutes until all chemical is removed. Remove contaminated clothing immediately and wash before reuse.
- Eye Contact:** Immediately flush eyes with large amounts of water for at least 15 minutes, removing contacts, if present, and lifting eyelids occasionally to facilitate irrigation. Seek medical attention if irritation persists
- Ingestion:** Do not induce vomiting unless directed by a physician. Seek immediate medical attention. Rinse mouth with water. Drink large quantities of water if person is conscious and alert. Never give water to an unconscious person.

5 FIRE FIGHTING MEASURES

This product contains alcohols which will reduce the effectiveness of normal foam. Use alcohol resistant foam instead. Use extinguishing measures that are appropriate to local circumstances and surrounding environment.

6 ACCIDENTAL RELEASE MEASURES

Pick up excess with inert absorbant material and place into separate waste container.
Use personal protective equipment. Ventilate area and wash spill site after material pickup is complete.

7 HANDLING AND STORAGE

- Handling Precautions:** Advice on general occupational hygiene
Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingsuffs.
- Storage Requirements:** Keep in a cool ventilated area. Keep container tightly closed. Keep out of reach of children

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls:** 2-Butoxyethanol cas#:(111-76-2) [16] : No data.
Sodium hydroxide cas#:(1310-73-2) [14] : No data.
- Personal Protective Equipment:** Personal protective equipment
Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and

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approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact: Material: Nitrile rubber Minimum layer thickness: 0.4 mm Break through time: 480 min
Material tested: Camatril (KCL 730 / Aldrich Z677442, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.2 mm Break through time: 30 min
Material tested: Dermatril P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

2-Butoxyethanol cas#:(111-76-2) [16]

Components with workplace control parameters

TWA	20 ppm	USA. ACGIH Threshold Limit Values (TLV)
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Eye & Upper Respiratory Tract irritation

Confirmed animal carcinogen with unknown relevance to humans

TWA	5 ppm	USA. NIOSH Recommended Exposure Limits
	24 mg/m3	

Potential for dermal absorption

TWA	50 ppm	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	240 mg/m3	

Skin designation

The value in mg/m3 is approximate.

TWA	25 ppm	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	120 mg/m3	

Skin notation

Sodium hydroxide cas#:(1310-73-2) [14]

Components with workplace control parameters

CEIL	2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
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C	2 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
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TWA **2 mg/m3** **USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants**

C **2 mg/m3** **USA. ACGIH Threshold Limit Values (TLV)**
Eye, skin, & Upper Respiratory Tract irritation

C **2 mg/m3** **USA. NIOSH Recommended Exposure Limits**

Exposure Guidelines

Review Section 3 & 4 for Exposure Guidelines.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Butoxyethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m ³ S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m ³
Sodium hydroxide 1310-73-2	-	TWA: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Green Liquid		
Physical State:	Liquid	Odor:	Glycol ether
Odor Threshold:	No data available		
		Solubility:	No data available
Spec Grav./Density:	1.031 +/- .005		
Viscosity:	No data available		
Boiling Point:	> 100° C / 212° F	Freezing/Melting Pt.:	No data available
		Flash Point:	> 93° C / 200° F
Partition Coefficient:	No data available		
Vapor Pressure:	No data available	Vapor Density:	No data available
pH:	13.0 +/- .5	VOC:	<6.0%
Evap. Rate:	<1		
		Auto-Ignition Temp:	No data available
Decomp Temp:	No data available	UFL / LFL:	No data available

10 STABILITY AND REACTIVITY

Reactivity:	None under normal processing
Chemical Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Avoid temperature extremes and direct sunlight
Materials to Avoid:	Strong oxidizers, aluminum and other soft metals, acids
Hazardous Decomposition:	Hydrogen gas in contact with some metals
Hazardous Polymerization:	Not Known

11 TOXICOLOGICAL INFORMATION



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2-Butoxyethanol cas#:(111-76-2) [16]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 470 mg/kg

LC50 Inhalation - rat - 4 h - 450 ppm Remarks: Behavioral:Ataxia. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

LD50 Dermal - rabbit - 220 mg/kg

LD50 Intraperitoneal - rat - 220 mg/kg

LD50 Intravenous - rat - 307 mg/kg

Skin corrosion/irritation: Skin - rabbit Result: Open irritation test

Serious eye damage/eye irritation: Eyes - rabbit Result: Moderate eye irritation - 24 h

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Butoxyethanol)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: KJ8575000

Human exposure above 200 ppm can be expected to cause narcosis, damage to the kidney and liver and present an abnormal blood picture showing erythropenia, reticulocytosis, granulocytosis, leukocytosis, and would be likely to cause fragility of erythrocytes and hematuria. Swallowing of 2-butoxyethanol results in a sour taste that turns to a burning sensation and is followed by numbness of the tongue which indicates paralysis of the sensory nerve endings., Central nervous system depression, Headache, narcosis
Stomach - Irregularities - Based on Human Evidence

Sodium hydroxide cas#:(1310-73-2) [14]

Information on toxicological effects

Acute toxicity: no data available

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: Causes severe burns. - 24 h

Serious eye damage/eye irritation: Eyes - rabbit Result: Corrosive - 24 h

Respiratory or skin sensitisation: Will not occur

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Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: WB4900000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Chemical Name	Oral LD50	Dermal LD50	LC50 Inhalation
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Sodium hydroxide 1310-73-2	140 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available. _____

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
2-Butoxyethanol 111-76-2	A3	Group 3	-	-

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Chronic toxicity Prolonged or repeated skin contact may cause dermatitis.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 9.0468% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

12 ECOLOGICAL INFORMATION

2-Butoxyethanol cas#:(111-76-2) [16]

Information on ecological effects

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Toxicity:

Toxicity to fish LC50 - other fish - 220 mg/l - 96 h.

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 1,815 mg/l - 24 h.
other aquatic invertebrates

Persistence and degradability: no data available

Ratio BOD/ThBOD 88 %

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

Sodium hydroxide cas#:(1310-73-2) [14]

Information on ecological effects**Toxicity:**

Toxicity to fish LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h.

LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h

Toxicity to daphnia and Immobilization EC50 - Daphnia - 40.38 mg/l - 48 h.
other aquatic invertebrates

Persistence and degradability: The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

Ecotoxicity

11.0468% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxyethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1698 - 1940: 24 h Daphnia magna mg/L EC50 >1000: 48 h Daphnia magna mg/L EC50
Sodium hydroxide 1310-73-2	-	45.4: 96 h Oncorhynchus mykiss mg/L LC50 static	-

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
2-Butoxyethanol 111-76-2	0.81

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13 DISPOSAL CONSIDERATIONS

2-Butoxyethanol cas#:(111-76-2) [16]

Waste treatment methods

Product: This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging: Dispose of as unused product.

Sodium hydroxide cas#:(1310-73-2) [14]

Waste treatment methods

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

14 TRANSPORT INFORMATION

UN3266, Corrosive liquid, basic, inorganic, n.o.s., ((Sodium hydroxide)), 8, PG III

ERG = 154



15 REGULATORY INFORMATION

[%] RQ (CAS#) Substance - Reg Codes

[1-6%] 2-Butoxyethanol (111-76-2) HAP, MASS, OSHAWAC, PA, TSCA, TSCAACTV, TXAIR

[1-4%] RQ(1000LBS), Sodium hydroxide (1310-73-2) CERCLA, CSWHS, MASS, OSHAWAC, PA, TSCA, TSCAACTV, TXAIR

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	Complies
ENCS	-
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - All components of this product are listed or are exempt or excluded from listing on the United States Toxic Substances Control Act Section 8(b) Inventory.

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances **IECSC** -

China Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances



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AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values %
2-Butoxyethanol - 111-76-2	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	Yes

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide 1310-73-2	1000 lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hydroxide 1310-73-2	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Right-to-Know Regulations

This product contains substances regulated by state right-to-know regulations.

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-Butoxyethanol 111-76-2	X	X	X
Sodium hydroxide 1310-73-2	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

This product does not contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Regulatory Code Legend



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CERCLA = Superfund clean up substance
CSWHS = Clean Water Act Hazardous substances
HAP = Hazardous Air Pollutants
MASS = MA Massachusetts Hazardous Substances List
OSHAWAC = OSHA Workplace Air Contaminants
PA = PA Right-To-Know List of Hazardous Substances
RQ = Reportable Quantity
TSCA = Toxic Substances Control Act
TSCAACTV = TSCA Active Chemicals
TXAIR = TX Air Contaminants with Health Effects Screening Level

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OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process, unless specified in the text.

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