

**DuPont™ Mold and Mildew Stain Remover for Natural Stone**

Version 3.1

Revision Date 08/13/2013

Ref. 130000107498

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DuPont™ Mold and Mildew Stain Remover for Natural Stone
MSDS Number : 130000107498

Manufacturer : DuPont
1007 Market Street
Wilmington, DE 19898

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Skin : Causes skin irritation. May cause: Pain, burning sensation, itching, redness, swelling, or rash., May cause allergic skin reaction..

Eyes : Corrosive, may cause permanent eye injury if not promptly treated. May cause: Tearing, pain, redness, swelling, ulceration, visual impairment, or blindness..

Inhalation : Risk of serious damage to the lungs (by inhalation). Fluid in the lungs (pulmonary oedema) with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin (symptoms might be delayed), Allergy or asthma-like reactions with symptoms of wheezing, chest tightness, difficulty breathing.

Ingestion : Ingestion causes burns of the upper digestive and respiratory tracts. Aspiration hazard if swallowed - can enter lungs and cause damage.

Target Organ : Respiratory Tract, Mucous membranes

Carcinogenicity

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Water	7732-18-5	>95%
Sodium hypochlorite	7681-52-9	1 - 3 %
Alkyl amine Oxide		<2 %
Alkylaminoacetate salt		<2 %

SECTION 4. FIRST AID MEASURES

- Skin contact : Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use.
- Eye contact : Rinse immediately with plenty of water for at least 15 minutes. Seek medical advice.
- Inhalation : Move to fresh air. Oxygen or artificial respiration if needed. Symptoms may be delayed. Call a physician immediately.
- Ingestion : Call a physician or poison control centre immediately. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- General advice : When symptoms persist or in all cases of doubt seek medical advice.

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SECTION 5. FIREFIGHTING MEASURES

Flammable Properties

Flash point : does not flash

Thermal decomposition

: > 200 °C (> 392 °F)

To avoid thermal decomposition, do not overheat.

Thermal decomposition can lead to release of irritating gases and vapours.

Fire and Explosion Hazard

: The product itself does not burn. Hazardous decomposition products formed under fire conditions. Hazardous combustion products Carbon dioxide (CO₂) Carbon monoxide Other hazardous decomposition products may be formed.

Hazardous gases/vapors produced are:

Hazardous combustion products

: Chlorine, Sodium hypochlorite, solution...% Cl active, Calcium hypochlorite, Hydrogen, Hydrochloric acid...%

Suitable extinguishing media

: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Firefighting Instructions

: Wear self contained breathing apparatus for fire fighting if necessary. Evacuate personnel to safe areas. Do not allow run-off from fire fighting to enter drains or water courses. Will react with most metals, releasing potentially explosive hydrogen gas.

SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel)

: Evacuate personnel to safe areas. Use personal protective equipment. Ventilate the area.

Spill Cleanup

: Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labelled containers.



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Accidental Release Measures : Do not discharge to streams, ponds, lakes or sewers. Avoid subsoil penetration.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel) : Avoid breathing vapours or mist. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before re-use.
- Handling (Physical Aspects) : To avoid thermal decomposition, do not overheat. Thermal decomposition can lead to release of irritating gases and vapours. Do not spray near open flame or heated surface.
- Storage : Keep tightly closed in a dry, cool and well-ventilated place. Protect from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls : Use only in area provided with appropriate exhaust ventilation.
- Personal protective equipment
 - Respiratory protection : In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
 - Hand protection : Additional protection: Impervious gloves
 - Eye protection : Wear safety glasses or coverall chemical splash goggles.
 - Skin and body protection : Lightweight protective clothing
- Exposure Guidelines
 - Exposure Limit Values

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which

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are lower than the AEL are in effect, such limits shall take precedence.
None established.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Color	: clear
Odor	: slight chlorine
pH	: 12.5
Boiling point	: 100 °C (212 °F)
% Volatile	: 96 %
Density	: 8.7 lb/gal at 23 °C (73 °F)
Specific gravity	: 1.044 at 23 °C (73 °F)
Water solubility	: soluble

SECTION 10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions.
Conditions to avoid	: Heat. Exposure to light. Avoid low pH. To avoid thermal decomposition, do not overheat.
Incompatibility	: Heavy metals such as, Nickel, Cobalt, Copper (flakes), Iron Acids Reducing agents, Organic materials, oxidizers
Hazardous decomposition products	: Carbon dioxide , Carbon monoxide Incompletely burned carbon products , Sodium chloride , Oxygen Hazardous gases or vapors may be released during decomposition., Other hazardous decomposition products may be formed.

SECTION 11. TOXICOLOGICAL INFORMATION

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Skin irritation : Skin irritation, rabbit

Not tested on animals
Non-corrosive


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Sodium hypochlorite

Dermal LD50	:	> 10,000 mg/kg , rabbit
Oral LD50	:	8,910 mg/kg , rat
Inhalation 4 h LC50	:	ca. 0.6 mg/l , rat Lung damage Fluid retention in lungs (pulmonary oedema)
Eye irritation	:	rabbit Corrosive
Skin sensitization	:	human Causes sensitisation.
Repeated dose toxicity	:	Inhalation human There are reports of human respiratory sensitization.
Mutagenicity	:	Caused genetic damage in cultured mammalian cells. Experiments showed mutagenic effects in cultured bacterial cells.
Reproductive toxicity	:	Evidence suggests the substance is not a reproductive toxin in animals.
Teratogenicity	:	Evidence suggests the substance is not a developmental toxin in animals.

Alkyl amine Oxide

Dermal	:	no data available
Oral LD50	:	846 mg/kg , rat Information given is based on data obtained from similar substances.
Eye irritation	:	Severe eye irritation, animals (unspecified species) Information given is based on data obtained from similar substances.
Skin sensitization	:	Does not cause skin sensitisation., human Patch test on human volunteers did not demonstrate sensitisation properties. Information given is based on data obtained from similar substances.

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Repeated dose toxicity	:	Dermal rabbit	Skin irritation, Information given is based on data obtained from similar substances.
		Oral rat	Gastrointestinal effects, Information given is based on data obtained from similar substances.
Carcinogenicity	:	Animal testing did not show any carcinogenic effects. Information given is based on data obtained from similar substances.	
Mutagenicity	:	Animal testing did not show any mutagenic effects. Tests on bacterial or mammalian cell cultures did not show mutagenic effects. Information given is based on data obtained from similar substances.	
Reproductive toxicity	:	Animal testing showed no reproductive toxicity. Information given is based on data obtained from similar substances.	
Teratogenicity	:	Animal testing showed no developmental toxicity. Information given is based on data obtained from similar substances.	
Alkylaminoacetate salt			
Oral LD50	:	> 5,000 mg/kg , rat	Information given is based on data obtained from similar substances.
Inhalation 4 h LC50	:	0.05 mg/l , rat	Information given is based on data obtained from similar substances.
Eye irritation	:	Severe eye irritation, rabbit	Information given is based on data obtained from similar substances.
Skin sensitization	:	Does not cause skin sensitisation., guinea pig	Information given is based on data obtained from similar substances.
Repeated dose toxicity	:	Oral rat	


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Mutagenicity : No adverse effect has been observed in chronic toxicity tests.,
 Information given is based on data obtained from similar substances.
 : Evidence suggests this substance does not cause genetic damage in
 animals.
 Tests on bacterial or mammalian cell cultures did not show mutagenic
 effects.
 Information given is based on data obtained from similar substances.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity
Sodium hypochlorite
 96 h LC50 : Fish (unspecified species) 0.065 mg/l
 48 h LC50 : Daphnia magna (Water flea) 0.032 mg/l
Alkyl amine Oxide
 96 h LC50 : Danio rerio (zebra fish) 2.4 mg/l OECD Test Guideline 203
 72 h EbC50 : Selenastrum capricornutum (green algae) 0.082 mg/l OECD Test
 Guideline 201
 ErC50 : Selenastrum capricornutum (green algae) 0.18 mg/l OECD Test
 Guideline 201
 48 h EC50 : Daphnia magna (Water flea) 2.6 mg/l OECD Test Guideline 202
Alkylaminoacetate salt
 96 h LC50 : Danio rerio (zebra fish) 107 mg/l
 Information given is based on data obtained from similar substances.
 72 h ErC50 : Desmodesmus subspicatus (green algae) 86 mg/l
 Information given is based on data obtained from similar substances.
 72 h EbC50 : Desmodesmus subspicatus (green algae) 79 mg/l
 Information given is based on data obtained from similar substances.
 48 h EC50 : Daphnia magna (Water flea) 29.7 mg/l



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Information given is based on data obtained from similar substances.

Environmental Fate

Alkyl amine Oxide

Biodegradability : Readily biodegradable.
Information given is based on data obtained from similar substances.

Bioaccumulation : Bioaccumulation is unlikely.
Information given is based on data obtained from similar substances.

Alkylaminoacetate salt

Biodegradability : 82 %
Readily biodegradable.
Information given is based on data obtained from similar substances.

Bioaccumulation : Bioaccumulation is unlikely.
Information given is based on data obtained from similar substances.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA : On the inventory, or in compliance with the inventory

SARA 313 Regulated : SARA 313: This material does not contain any chemical components with


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Chemical(s)	known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
CERCLA Reportable Quantity	: 3,401 lbs Based on the percentage composition of this chemical in the product.: Sodium hypochlorite, solution...% Cl active
California Prop. 65	: Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known
PA Right to Know Regulated Chemical(s)	: Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Sodium hypochlorite
NJ Right to Know Regulated Chemical(s)	: Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Sodium hypochlorite

SECTION 16. OTHER INFORMATION

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Contact person : MSDS Coordinator, DuPont Chemicals and Fluoroproducts, Wilmington, DE 19898, (800) 441-7515

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