

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : BREAKTHROUGH+
Product code : 667

1.2. Recommended use and restrictions on use

Recommended use : Laundry
Restrictions on use : For professional use only

1.3. Supplier

UNX-Christeyns, LLC
707 E Arlington Blvd.
Greenville, NC 27858
USA
T 252-756-8616 / 800.869.6171
www.unxchristeyns.com - info@unxchristeyns.com

1.4. Emergency telephone number

Emergency number : VELOCITY EHS (800) 255-3924 (24 HOURS)
(For use only in the event of emergencies involving a spill, leak, fire, exposure, or accident involving chemicals)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage
Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H318 - Causes serious eye damage
Precautionary statements (GHS US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poison center or doctor.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Sodium Carbonate	CAS-No.: 497-19-8	30 – 60
Sodium Sulfate Anhydrous	CAS-No.: 7757-82-6	10 – 30
Sodium Chloride	CAS-No.: 7647-14-5	10 – 30
Sodium Percarbonate	CAS-No.: 15630-89-4	5 – 10
Silicic Acid, Sodium Salt	CAS-No.: 1344-09-8	3 – 5
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and benzenesulfonic acid, 4-methyl-, reaction products with sodium hydroxide	CAS-No.: 68411-30-3	1 – 3

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with plenty of water or shower.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/injuries after eye contact	: Serious damage to eyes.
-------------------------------------	---------------------------

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
------------------------------	----------------------------------

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
--------------------------------------------------	--------------------------------

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
--------------------------------	------------------------------------------------------------------------------------------------------------------------------------------

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Eye protection:

Safety glasses

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Powder.

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Color	: White / blue
Odor	: No data available
Odor threshold	: No data available
pH	: 10.9 (1%)
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.09 g/ml
Solubility	: No data available
Log Pow	: No data available
Autoignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Sodium Carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg body weight Animal: rat
LD50 oral	4090 mg/kg body weight
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:
LD50 dermal	> 2000 mg/kg body weight
LC50 Inhalation - Rat (Dust/Mist)	1.2 mg/l Source: SIDS
ATE US (oral)	2800 mg/kg body weight
ATE US (dust, mist)	1.2 mg/l/4h

Sodium Percarbonate (15630-89-4)	
LD50 oral	1034 mg/kg body weight
LD50 dermal rabbit	> 2000 mg/kg body weight Animal: rabbit, Guideline: other:
LD50 dermal	> 2000 mg/kg body weight
ATE US (oral)	1034 mg/kg body weight

Sodium Sulfate Anhydrous (7757-82-6)	
LD50 oral rat	> 10000 mg/kg Source: OECD Screening Information Data Set
LD50 oral	> 2000 mg/kg body weight
LC50 Inhalation - Rat	> 2.4 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and benzenesulfonic acid, 4-methyl-, reaction products with sodium hydroxide (68411-30-3)	
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 10.9 (1%)
Serious eye damage/irritation : Causes serious eye damage.
pH: 10.9 (1%)
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : Not applicable
Symptoms/injuries after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Sodium Carbonate (497-19-8)	
LC50 - Fish [1]	300 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Crustacea [1]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.
EC50 - Other aquatic organisms [1]	265 mg/l waterflea
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.
EC50 96h - Algae [1]	242 mg/l Source: ECOTOX
Sodium Percarbonate (15630-89-4)	
LC50 - Fish [1]	70.7 mg/l Source: EPA guideline, SIDS
EC50 - Crustacea [1]	4.9 mg/l Test organisms (species): Daphnia pulex
EC50 - Other aquatic organisms [1]	4.9 mg/l waterflea
ErC50 algae	> 7.7 mg/l Source: SIDS
Sodium Sulfate Anhydrous (7757-82-6)	
LC50 - Fish [1]	7960 mg/l Source: OECD Screening Information Data Set
EC50 - Crustacea [1]	≈ 3150.21 mg/l Test organisms (species): Ceriodaphnia dubia
EC50 - Other aquatic organisms [1]	4580 mg/l waterflea
LC50 - Fish [2]	≈ 7960 mg/l Test organisms (species): Pimephales promelas
EC50 - Other aquatic organisms [2]	1900 mg/l

12.2. Persistence and degradability

BREAKTHROUGH+	
Persistence and degradability	No data available.
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and benzenesulfonic acid, 4-methyl-, reaction products with sodium hydroxide (68411-30-3)	
Persistence and degradability	Not rapidly degradable
Silicic Acid, Sodium Salt (1344-09-8)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Sodium Carbonate (497-19-8)	
Log Pow	-6.19 Source: Quantitative Structure Activity Relation
Sodium Sulfate Anhydrous (7757-82-6)	
Log Pow	-3 Source: OECD Screening Information Data Set

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considerations

13.1. Disposal methods

- Regional legislation (waste)
- : Do not allow the product to contaminate any body of water. Refer to Section 8 for personal protection equipment.
- Waste treatment methods
- : Avoid unauthorized disposal. Do not dump into any body of water. Comply with federal, state/provincial and local laws/regulations. Do not reuse empty containers.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)

: Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)

: Not regulated

14.4. Packing group

Packing group (DOT)

: Not regulated

14.5. Environmental hazards

Other information

: No supplementary information available.

14.6. Special precautions for user

DOT

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Sodium Carbonate	497-19-8	Present	Active	
Sodium Percarbonate	15630-89-4	Present	Active	
Sodium Sulfate Anhydrous	7757-82-6	Present	Active	
Sodium Chloride	7647-14-5	Not present	-	
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and benzenesulfonic acid, 4-methyl-, reaction products with sodium hydroxide	68411-30-3	Not present	-	

BREAKTHROUGH+

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	CAS-No.	Listing	Commercial status	Flags
Silicic Acid, Sodium Salt	1344-09-8	Present	Active	

15.2. International regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases	
H318	Causes serious eye damage

Safety Data Sheet (SDS), USA ML

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.