SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

PRODUCT IDENTIFIERS Antimicrobial Multi-Surface Cleaner
PRODUCT NAME Safe Crate Powered by Xtreme
BRAND Arbour Products LLC

RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST
IDENTIFIED USES EPA Exempt 25(b) Antimicrobial Product

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET
COMPANY Arbour Products LLC
PSI - Product Specialists, Inc
11677 Chillicothe Road, Unit 1
Chesterland, OH 44026

FOR PRODUCT INFORMATION ONLY
TELEPHONE 1.440.729.4427

EMERGENCY TELEPHONE NUMBER Chemtrec + 1.800.424.9300 (Within USA)

SECTION 2: HAZARD IDENTIFICATION

HAZARD CLASSIFICATION Not Applicable

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Acute Toxicity-Oral	Category 5
Skin Corrosion/Irritation	Category 3
Serious Eye Damage/Eye Irritation	Category 2B

GHS LABEL ELEMENTS

Signal Word	Warning
Hazard Symbols	Not Applicable
Precautionary Statements	May be harmful if swallowed Causes mild skin irritation Causes eye irritation

HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS - NOT APPLICABLE

Other Information	May cause mild skin irritation if not rinsed off with soap and water May cause eye irritation if not rinsed out with copious amounts of water

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCES

CAS#	CHEMICAL NAME	COMMON NAME/SYNONYMS	IMPURITIES/ADDITIVES
77-92-9	Citric Acid	Citric Acid	N/A
8007-02-1	Lemongrass Oil	Lemongrass Oil	N/A
1393-03-09	Quillaja Saponin	Soap Bark	N/A
N/A	40CFR 180.940 -	Commonly Consumed Food Commodities “Trade Secret Claimed”	

NOTE

The identity and composition of this material is trade secret (29CFR 1910.1200(i)) and is available to any attending physician, paramedical personnel and/or spill response personnel in the case of an emergency.

There are no additional ingredients present which, within the current knowledge of the manufacturer and in the concentrations applicable, classified as hazardous to the health or environment thus do not require reporting in this section.

SECTION 4: FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL ADVICE

It is always recommended to consult a physician. Show this safety data sheet to the doctor in attendance.

IF INHALED

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

IN CASE OF SKIN CONTACT

Remove any contaminated clothing first. Wash off with soap and plenty of water. If irritation occurs consult a physician.

IN CASE OF EYE CONTACT

If wearing contacts, first remove. Flush eyes with water as a precaution. If irritation occurs consult a physician.

IF SWALLOWED

Never give anything by mouth to an unconscious person. Rinse mouth with water. If irritation occurs consult a physician.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

See sections 2(II) and 11(XI) for the most important symptoms and effects

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No data available

SECTION 5: FIREFIGHTING MEASURES

EXTINGUISHING MEASURES

SUITABLE EXTINGUISHING MEDIA

Product does not support combustion, use extinguishing agent for type of surrounding fire.

SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
No known specific hazards

ADVICE FOR FIREFIGHTERS
Wear self-contained breathing apparatus for firefighting if necessary

FURTHER INFORMATION
No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES
Use personal protective equipment. Avoid breathing any vapors or mist. Ensure adequate ventilation. Move personnel to safe areas. For personal protection see section 8

METHODS AND MATERIALS FOR CONTAINMENT
Soak up with inert absorbent material and dispose of it in accordance with local and state disposal regulations. Keep in suitable closed containers for proper disposal.

REFERENCE TO OTHER SECTIONS
For disposal see section 13

CLEANUP PROCEDURES
Product is water based, contain spills using absorbent material suitable for water-based products.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Do not eat or drink while using this product. Avoid mixing with incompatible materials. Prevent accidental release into the environment. Do not let product enter storm drains. For precautions see section 2

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES
Keep container tightly closed in a dry and well-ventilated place. Open containers must be carefully closed/resealed and kept upright to prevent leakage. Do not mix with strong acids, bases, or oxidizing agents.

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

CONTROL PERIMETERS

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS
Contains no substances with occupational exposure limit values.

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING EQUIPMENT
Normal Ventilation is generally adequate. Handle in accordance with good industrial hygiene and safety practices. Personal protective equipment may be worn for added safety in accordance with the below recommended equipment. Wash hands before all breaks and at the end of the workday.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION
While eye protection is not required, where protection from nuisance levels are desired, use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

SKIN PROTECTION

While skin protection is not required, where protection from nuisance levels are desired, Gloves must be inspected prior to use. Use proper glove removal technique. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full Contact

Material: Nitrile rubber

Splash Contact

Material: Nitrile rubber

If mixed with other substances, and under conditions which differ from product directions, contact your glove supplier. 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

While body protection is not required, where protection from nuisance levels are desired, choose body protection in rela- tion to its type, to the concentration and to the specific work-place.

Respiratory Protection

While Respiratory protection is not required, where protection from nuisance levels are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of Environmental Exposure

Do not let product enter storm drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

a)	Appearance	Form: Clear Colorless
b)	Odor	Mild Lemongrass
c)	Odor Threshold	No Data Available
d)	pH	No Data Available
e)	Freeze/melting point	⩽ 32 F (0 C)
f)	Boiling point	⩾ 211 F (99 C)
g)	Flash point	No Data Available
h)	Evaporation rate	No Data Available
i)	Flammability (solid, gas)	No Data Available
j)	Upper flammability limits	No Data Available
k)	Lower flammability limits	No Data Available
l)	Vapor pressure	No Data Available
m)	Vapor density	No Data Available
n)	Specific gravity	1.00 ± 0.02
o)	Solubility	100% Soluble (Water)
p)	Partition coefficient	No Data Available
q)	Auto-ignition temperature	No Data Available
r)	Decomposition temperature	No Data Available
s)	Kinematic viscosity	No Data Available
t)	Relative Density	No data available

OTHER SAFETY INFORMATION No Data Available

These physical properties are typical values for this product and not specifications. No other data available.

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY

This material is considered to be non-reactive under normal conditions of use.

CHEMICAL STABILITY

Stable under recommended storage conditions

POSSIBILITY OF HAZARDOUS REACTIONS

No data available

CONDITIONS TO AVOID

No data available

INCOMPATIBLE MATERIALS

Strong Acids, Bases, and Oxidizing Agents

HAZARDOUS DECOMPOSITION PRODUCTS

Other decomposition products -no data available In the event of fire, see section 5

SECTION 11: TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

ACUTE TOXICITY

LD50:	Oral-rat - 3,120 mg/kg
Respiration:	No Data Available
Inhalation:	No Data Available
Dermal:	No Data Available

SKIN CORROSION/IRRITATION

No Data Available

SERIOUS EYE DAMAGE/EYE IRRITATION

No Data Available

RESPIRATORY OR SKIN SENSITIZATION

No Data Available

GERM CELL MUTAGENICITY

No Data Available

ROUTE(S) OF ENTRY/EXPOSURE SKIN, EYE, INGESTION

Inhalation is not a significant route of exposure when used as directed

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

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly Investigated by any agency, governmental or otherwise.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY

No Data Available

PERSISTENCE AND DEGRADABILITY

No Data Available

BIO ACCUMULATIVE POTENTIAL
Does not bioaccumulate

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

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT
Offer surplus and non-recyclable solutions to a licensed disposal company.

CONTAMINATED PACKAGING
Dispose of as unused product.

NOTE
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: TRANSPORT INFORMATION

TRANSPORT INFORMATION

DOT (US)
Not Dangerous Goods

TDG(CANADA)
Not Dangerous Goods

IMDG
Not Dangerous Goods

IATA
Not Dangerous Goods

NOTE
The proper shipping name and/or hazard class for this product may vary according to packaging, properties, and mode of transportation. Customer is urged to consult 49 CFR 100-177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods.

SECTION 15: REGULATORY INFORMATION

US FEDERAL

HEALTH & SAFETY REPORTING LIST
None of the chemicals are on the Health & Safety Reporting List.

CHEMICAL TEST RULES
None of the chemicals in this product are under a Chemical Test Rule.

TSCA SECTION 12

None of the chemicals are listed under TSCA Section 12b.

TSCA SIGNIFICANT NEW USE RULE

None of the chemicals in this material have a SNUR under TSCA.

CERCLA HAZARDOUS SUBSTANCES AND CORRESPONDING RQS

None of the chemicals in this material have an RQ.

SARA SECTION 302 COMPONENTS

None of the chemicals in this product have a TPQ. No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA SECTION 313 COMPONENTS

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 HAZARDS

No SARA Hazards

CLEAN AIR ACT

This material does not contain any hazardous air pollutants.
This material does not contain any Class 1 Ozone depletors.
This material does not contain any Class 2 Ozone depletors.

CLEAN WATER ACT

None of the chemicals in this product are listed as Hazardous Substances under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA

STATE

This chemical is not present on state lists from CA, PA, MN, MA, FL, or NJ

CALIFORNIA PROP 65 COMPONENTS

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

EUROPEAN/INTERNATIONAL

EUROPEAN/INTERNATIONAL REGULATIONS

European Labeling in Accordance with EC Directives

EUROPEAN ECONOMIC COMMUNITY

Classification per Directive 67/548/EEC or 1999/45/EC
Not Classified

RISK PHRASES

None Allocated

SAFETY PHRASES

S2-Keep out of reach of children S24/25

Avoid contact with skin and eyes

WGK, GERMANY (WATER DANGER/PROTECTION)
No Data Available

CANADA

CANADA - DSL/NDSL
This product is listed on Canada's DSL List.

CANADA - WHMIS
WHMIS: Not available.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations. Canadian Ingredient Disclosure List: N/A

SECTION 16: OTHER INFORMATION

OTHER INFORMATION

HMIS RATING	NFPA RATING
Health hazard: 0	Health hazard: 0
Flammability: 0	Fire Hazard: 0
Physical Hazard: 0	Reactivity Hazard: 0

FURTHER INFORMATION
 The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product regarding appropriate safety precautions and directed uses. Arbour Products LLC and its Affiliates shall not be held liable for any damage resulting from handling, mishandling or from contact with the above product.

END OF SAFETY DATA SHEET

TEST DATA FOR XTREME

EFFICACY TEST DATA

Xtreme as a Disinfecting Detergent

(EPA Manufacturing Facility Reg. No. 82859)

VIRUCIDAL DATA

Testing Methods

* U.S. E.P.A. Pesticide Assessment Guidelines, Subdivision G: Product Performance, 1982, Section 91-30, pp. 72-76.
† Virucide Assay (EPA, Federal Register 10, No. 123, 6/25/75, p. 26836)
. Protocols for Testing the Efficacy of Disinfectants against Hepatitis B Virus (HBV) (EPA, Federal Register, Vol., 65,
No. 166, 8/25/2000, p. 51828).
‡ Protocol for Testing Disinfectants against Hepatitis C Virus using Bovine Viral Diarrhea Virus as approved by the
U.S. EPA on August 15, 2002.

Test Conditions: 2 oz. Per gallon of water dilution, 10 minute contact time, tested in the presence of serum glass petri dish substrates

Results

Test Organism
Sample
Titer Reduction
†Adenovirus Type 2 A B 3.0 $\log_{10}$ >3.0 $\log_{10}$
*Avian Influenza A Virus (H3N2) (Avian Ressortant) (ATCC VR-2072) A B >3.5 $\log_{10}$ >3.5 $\log_{10}$
*Avian Influenza Virus, Type A (Turkey/WIS/66) (H9N2) A B >4.5 $\log_{10}$ >4.5 $\log_{10}$
‡Bovine Viral Diarrhea Virus (BVDV) A B 6.1 $\log_{10}$ 3.8 $\log_{10}$
*Feline Calicivirus (FCV) A B 5.79 $\log_{10}$ >6.06 $\log_{10}$
.Hepatitis B Virus (HBV) (Duck Hepatitis B Virus-DHBV) A B 4.5 $\log_{10}$ 4.5 $\log_{10}$
‡Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus-BVDV) A B 6.1 $\log_{10}$ 3.8 $\log_{10}$
†Herpes Simplex Type 1 (Sabin) A B >4.0 $\log_{10}$ >3.7 $\log_{10}$
*Human Coronavirus (ATCC VR-740, strain 229E) A B >3.0 $\log_{10}$ >3.0 $\log_{10}$
*Human Immunodeficiency Virus, HTLV-III$_{RF}$, strain of HIV-1
(associated with AIDS)
A B >3.0 $\log_{10}$ >3.0 $\log_{10}$
†Influenza A_2 (Japan 305/57) A B >6.5 $\log_{10}$ >6.0 $\log_{10}$
*Norovirus (Norwalk Virus) (FCV) A B 5.79 $\log_{10}$ >6.06 $\log_{10}$
*SARS Associated Coronavirus (ZeptoMetrix) A B 4.03 $\log_{10}$ 4.03 $\log_{10}$
†Vaccinia (Wyeth) A B >3.5 $\log_{10}$ >3.5 $\log_{10}$

Conclusion

Under the conditions of this investigation, Xtreme Detergent/Disinfectant was **virucidal** for Adenovirus Type 2, Avian Influenza A Virus (H3N2), Avian Influenza Virus Type A (H9N2), Bovine Viral Diarrhea Virus
(BVDV), Feline Calicivirus (FCV), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Herpes Simplex Type 1 (Sabin),
Human Coronavirus, Human Immunodeficiency Virus (HIV-1), Influenza A_2 (Japan 305/57), Norovirus (Norwalk
Virus), SARS Associated Coronavirus and Vaccinia (Wyeth) according to criteria established by the U.S. Environmental Protection Agency for registration and labeling of a disinfectant product as a virucide.

MILDEW FUNGISTATIC DATA

Testing Method

Hard Surface Mildew Fungistatic Test (Unofficial Protocol, 10/27/76)
Test Organism: *Aspergillus niger* (ATCC 6275)
Test Conditions: tile substrates

Results

Sample Dilution No. of Exposed Tiles No. of Tiles Showing Growth
Xtreme Detergent/Disinfectant oz/gal 10 0
Control - 10 10

Conclusion

Under the conditions of this investigation, Xtreme Detergent/Disinfectant was **fungistatic** for *Aspergillus niger* according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a fungistat.

FUNGICIDAL DATA

Test Method

AOAC Fungicidal Test

Test Organism: *Trichophyton mentagrophytes* (ATCC 9533)

Test Conditions: 2 oz/gal dilution
5% organic soil load
20°C exposure temperature

Results

Exposure Time
(min.) vs. Growth
Sample 5 10 15
A
B
+
+
0
0
0
0

Conclusion

Under the conditions of this investigation, Xtreme Detergent/Disinfectant was **fungicidal** for *Trichophyton mentagrophytes* according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a fungicide.

DISINFECTION DATA

Test Method

AOAC Use Dilution

Test Conditions: 5% organic soil load, 10 minute contact time, stainless steel carrier substrates, 20°C exposure temperature, 2 oz/gal dilution

Results

No. of Carriers
Test Organism Sample Exposed Positive
Staphylococcus aureus (ATCC 6538) A
B
C
60
60
60
0
0
0
Salmonella choleraesuis (ATCC 10708) A
B
C
60
60
60
0
0
0

Pseudomonas aeruginosa (ATCC 15442) A
B
C
60
60
60
0
0
0
Brevibacterium ammoniagenes (ATCC 6871) A
B
10
10
0
0
Enterobacter aerogenes (ATCC 13048) A
B
10
10
0
0
Escherichia coli (ATCC 11229) A
B
10
10
0
0
Klebsiella pneumoniae (ATCC 4352) A
B
10
10
0
0
Listeria monocytogenes (ATCC 984) A
B
10
10
0
0
Methicillin resistant *Staphylococcus aureus* (MRSA) (ATCC 33593) A
B
10
10
0
0
Salmonella schottmuelleri (ATCC 8759) A
B
10
10
0
0

Shigella dysenteriae (ATCC 12180) A
B
10
10
0
0
Streptococcus faecalis (ATCC 10541) A
B
10
10
0
0
Streptococcus pyogenes (Clinical-Flesh Eating Strain, BIRD M3) A
B
10
10
0
0
Streptococcus salivarius (ATCC 9222) A
B
10
10
0
0
Vancomycin intermediate resistant *Staphylococcus aureus* (VIRSA) A
B
10
10
0
0

Conclusion

Under the conditions of these investigations, Xtreme Detergent/Disinfectant demonstrated **disinfectant** activity against *Staphylococcus aureus*, *Salmonella choleraesuis*, *Pseudomonas aeruginosa, Brevibacterium ammoniagenes, Enterobacter aerogenes, Escherichia coli, Klebsiella pneumoniae, Listeria monocytogenes,* Methicillin resistant *Staphylococcus aureus* (MRSA), *Salmonella schottmuelleri, Shigella dysenteriae, Streptococcus faecalis*, *Streptococcus pyogenes* (Clinical – Flesh Eating Strain, BIRD M3), *Streptococcus salivarius* and Vancomycin intermediate resistant *Staphylococcus aureus* (VIRSA) according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a bactericide.

SANITIZATION DATA

Test Method

AOAC Germicidal and Detergent Sanitizing Action of Disinfectants

Test Conditions: 200 ppm active quaternary
2 oz/3.5 gal dilution

Results

TOTAL BACTERIAL COUNTS/
% KILL vs. EXPOSURE TIME
Synthetic
Hard Water

Test Organism	Sample (ppm)	30 seconds TBC *	30 seconds % Kill†	60 seconds TBC *	60 seconds % Kill†
Staphylococcus aureus (ATCC 6538)	A	250	99.999	1120	65
	B	250	99.999	1065	70
	C	250	99.999	1275	185
Escherichia coli (ATCC 11229)	A	300	99.999	990	65
	B	300	99.999	1215	80
	C	300	99.999	1460	190

* TBC = Total Bacterial Count, cfu/ml
† % Kill calculated based on initial inoculum control count of 75-125 x 10_6 cfu/ml.

Conclusion

Under the conditions of these investigations, Xtreme Detergent/Disinfectant demonstrated **sanitizing** activity against *Staphylococcus aureus* and *Escherichia coli* according to criteria established by the U. S. Environmental Protection Agency for registration and labeling of a disinfectant product as a sanitizer.

DERMAL SKIN TEST DATA

DERMAL IRRITATION TESTING DATA

Summary of Dermal Irritation Testing on Xtreme 01/10/07

The Method used in Protocol Design was the Modified Draize method as described in OECD Guidelines for the Testing of Chemicals, Sec. 404, Paris 1981 (revised: 1992)

In each animal, the sum of the skin values for erythema at 1, 24, 48 and 72 hours for exposed areas was added to the similar sum of the values for oedema formation. The primary irritation index for each animal was the sum of the two summary values divided by 3 (i.e. the average of the three readings). The primary irritation score and its standard deviation are the mean value and standard deviation of the primary irritation indices of the three animals.

A 0.5 mL portion of the test article Xtreme was topically applied to the intact skin of a group of three rabbits by patch application. The test article stayed in contact with the skin for a 4 hour period.

The test sites were evaluated at 1, 24, 48, and 72 hours following the exposure period. The test article Xtreme showed no erythema or oedema on all animals at one hour after the exposure period. At 24 hours after the exposure period, no erythema was observed on all animals. At 72 hours after the exposure period, no erythema was observed on all animals.

NOTE: Xtreme was applied at pure, undiluted strength.

Classification of Primary Irritation Scores:

0 - 0.9	Non-Irritant
1.0 - 1.9	Very Mild Irritant
2.0 - 3.9	Mild Irritant
4.0 - 5.9	Moderate Irritant
6.0 - 8.0	Severe Irritant

Based on these results, the test article was classified as follows:

Primary Irritation Score 0.3 ± 0.1

Classification: Non- Irritant

Based on the above findings, the test article is **not classified** according to the Transportation of Dangerous Goods Act.

Based on the above findings, the test article Xtreme is classified as **NON- IRRITANT** according to OSHA, US D.O.T. and the Canadian Transportation of Dangerous Goods Act testing protocols thus requires no PPE's as per 29CFR.

DERMAL EYE TEST DATA

Summary of Eye Irritation Testing/CFR 1500.42 on
Xtreme 11/17/07
Herein referred to as Xtreme

The Method used in Protocol Design was the Draize method as described in OECD Guidelines for the Testing of Chemicals, Sec. 405, OPPTS 798.4500 Primary Eye Irritation, OPP 81-4 Acute Eye Irritation-Rabbit, and EPA report 540/09-82, 1982.

Six albino rabbits shall be used in accordance with CFR 1500.42. In each animal, the test material shall be placed into one eye of each rabbit. The eyelids shall then gently be held together for one second and then the rabbit shall be released. The grade of ocular reaction is recorded at 1, 24, 48 and 72 hours. The sum of the grade of ocular reaction shall then be added. The primary irritation index for each animal was the sum of the two summary values divided by 6 (i.e. the average of the three readings). The primary irritation score and its standard deviation are the mean value and standard deviation of the primary irritation indices of the three animals.

A 0.1 mL portion of the test article Xtreme was topically applied to the intact eyes of a group of six rabbits by placing the test material with a sterile dropper into the conjunctival sac of one eye of each rabbit by gently pulling the lower lid away from the eyeball.

The test sites were evaluated at 1, 24, 48, and 72 hours following the exposure period. The test article Xtreme showed no ocular reaction on all rabbits at 24 hrs hours after the exposure period. At 1 hour after exposure, no ulcerations or opacity were observed. However, slight redness was apparent in 1 of the 6 rabbits. At 24 hours after the exposure, no ulcerations or opacity were observed. The 1 rabbit that showed slight redness had essentially recovered 100% at this testing interval. At 48 hours after the exposure, no ulcerations or opacity were observed. At 72 hours after the exposures, no ulcerations or opacity were observed.

NOTE: Xtreme was applied at pure, undiluted strength.

Classification of Primary Irritation Scores:

0-7.0	Non-Irritant
7.1-5.0	Practically Non-Irritating
15.1-25.0	Slightly Irritating
25.1-50.0	Moderately Irritating
50.1-110.0	Severely Irritating/Corrosive

Based on these results, the test article Xtreme was classified as follows:

Primary Irritation Score 0.8 ± 0.1
Classification Non- Irritant

Based on the above findings, the test article Xtreme is not classified according to the US D.O.T. and the Canadian Transportation of Dangerous Goods Act.

References:

(1) Buehler, E.V. and Newmann, E.A. A comparison of Eye Irritation in Monkeys and Rabbits. *Toxicology and Applied Pharmacology 6:701-710 (1964)*

(2) Draize, J.H. et al. Methods for the study of irritation and toxicity of substances applied topically to the skin and mucous membranes. *Journal of Pharmacology and Experimental Therapeutics. 83-377-390 (1944)*

Xtreme Technology Stabilized Non Spore Microbes

Xtreme patented technology utilizes the ability to stabilize live vegetative microbes in a liquid form providing Xtreme unique benefits vs. traditional spore based systems, thereby allowing our clients the opportunity to market the next generation of microbial based products.

In addition to Xtreme's safety with concern to the end users accidental skin and eye contact and Xtreme's superior efficacy test results, Xtreme also out performs competing formulas in the following environments:

Xtreme will easily and effectively degrade the following but not limited to:
Petroleum hydrocarbons
Fats
Oils
Greases
Stubborn organic compounds
Human and Animal feces

Unique benefits:
No germination time requires, goes to work immediately (conventional spore technology requires germination time of 12-24 hrs)

More complete degradation (metabolism) resulting is a faster elimination and reduction or odors

Completely degrades hydrocarbons to Carbon dioxide and water

Consistent Lipase production under most all field conditions

Significantly reduces BOD, COG, and FOG

Excellent performance in a varying rage of pH and temperature

Most stable in the industry, no reduction of cfu's for 12 months+ in both concentrated form and at dilutions up to 10:1

Performs equally under aerobic and anoxic conditions

Salmonella free, Nonpathogenic