Po 0,4419

Lonza

Bardac™ 208M

Version 1.5 SDS Number: 000000001375 Revision Date: 2015.09.15

SECTION 1. IDENTIFICATION

13112

Product name	:	Bardac™ 208M
Product code	:	000000001375

Manufacturer or supplier's details

Company	:	**Lonza Inc.** 90 Boroline Road Allendale, NJ 07401 USA Business Telephone 1-201-316-9200 **Lonza Inc.** 1200 Bluegrass Lakes Pkwy Alpharetta, GA 30004 USA Business Telephone 1-678-624-5800
E-mail address	:	prodinfo@lonza.com
Emergency telephone number	:	+41 61 313 94 94 (24h) For US only CHEMTREC 1-800-424-9300

Recommended use of the chemical and restrictions on use

Recommended use	:	Cleaning/washing agents and disinfectants

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 3
Acute toxicity (Oral)	:	Category 4
Acute toxicity (Dermal)	:	Category 3
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1

GHS Label element

Hazard pictograms :

Signal word	:	Danger
Hazard statements	:	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	45.00 - 55.00
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	30.00 - 35.00
Ethanol	64-17-5	5.00 - 15.00

SECTION 4. FIRST AID MEASURES

If inhaled	:	Move to fresh air. Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact	:	After contact with skin, wash immediately with plenty of soap and water. Call a physician immediately. Take off all contaminated clothing immediately.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Call a physician immediately.
If swallowed	:	Call a physician immediately. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry powder Water spray Foam
Specific hazards during firefighting	:	Heating or fire can release toxic gas.
Further information	:	Use water spray to cool unopened containers.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use respirator when performing operations involving potential exposure to vapour of the product.
Environmental precautions		
General advice	:	Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up	:	Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms.

Conditions for safe storage : Keep container tightly closed.
To maintain product quality, do not store in heat or direct sunlight.
Keep in a dry, cool and well-ventilated place.

Recommended storage temperature : 10 - 38 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethanol	64-17-5	STEL	1,000 ppm	ACGIH
		REL	1,000 ppm 1,900 mg/m3	NIOSH/GUIDE
		PEL	1,000 ppm 1,900 mg/m3	OSHA_TRANS
		TWA	1,000 ppm 1,900 mg/m3	Z1A
		STEL	1,000 ppm	CAD ON OEL

Appropriate engineering controls

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection
Material : Nitrile rubber
Rate of permeability : > 480 min

Eye protection : Tightly fitting safety goggles
Face-shield

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Rubber or plastic apron
Rubber or plastic boots

Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : light yellow

Odour : mild

Odour Threshold	:	no data available
pH	:	6.5 - 9.0, Concentration: 100 g/l (25 °C)
Melting point/range	:	-20 °C
Boiling point/boiling range	:	no data available
Flash point	:	46 °C Method: Setaflash closed cup, closed cup
Evaporation rate	:	no data available
Upper explosion limit	:	no data available
Lower explosion limit	:	no data available
Vapour pressure	:	no data available
Relative vapour density	:	no data available
Relative density	:	no data available
Density	:	0.93 g/cm3 (25 °C)
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	ca. 30 g/l Solvent: Ethanol ca. 70 g/l Solvent: Isopropanol
Partition coefficient: n-octanol/water	:	no data available
Auto-ignition temperature	:	no data available
Decomposition temperature	:	no data available
Viscosity		
Viscosity, dynamic	:	535 mPa.s (20 °C) Brookfield
Viscosity, kinematic	:	no data available
Surface tension	:	32 mN/m

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	:	Stable under normal conditions.
Conditions to avoid	:	no data available

Incompatible materials	:	Reducing agents Strong oxidizing agents
Hazardous decomposition products	:	Hydrogen chloride gas Nitrogen oxides (NOx) Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	:	Inhalation Ingestion Eyes Skin

Acute toxicity

Acute oral toxicity (LD50)	:	229 mg/kg Species: Rat
Acute oral toxicity (LD50)	:	366 mg/kg Species: Rat
Acute dermal toxicity (LD50)	:	421 mg/kg Species: Rabbit Exposure time: 24 h GLP: yes
Acute dermal toxicity (LD50)	:	645 mg/kg Species: Rabbit
Acute dermal toxicity (LD50)	:	204 mg/kg Species: Rabbit

Skin corrosion/irritation

Skin irritation	:	Corrosive Species: Rabbit Exposure time: 4 h Method: DOT GLP: yes

Serious eye damage/eye irritation

Eye irritation	:	Corrosive Species: Rabbit Exposure time: 24 h Assessment: Risk of serious damage to eyes. Method: DOT

Respiratory or skin sensitisation

Sensitisation	:	Test Type: Buehler Test Species: Guinea pig Result: not sensitizing GLP: yes

Germ cell mutagenicity

Genotoxicity in vitro : not mutagenic
Ames test, Salmonella

not mutagenic
Chinese hamster ovary cells

Further information

Remarks: Information given is based on data on the components and the toxicology of similar products. No data is available on the product itself.

The following toxicological data refer to:

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (CAS-No.: 68424-85-1)

Acute toxicity

Acute oral toxicity (LD50) : ca. 344 mg/kg
Species: Rat

Acute dermal toxicity (LD50) : ca. 3,340 mg/kg
Species: Rabbit
Exposure time: 24 h

Skin corrosion/irritation

Skin irritation : Corrosive
Species: Rabbit
Exposure time: 24 h
Method: DOT

Serious eye damage/eye irritation

Eye irritation : Corrosive
Species: Rabbit
Method: DOT

Respiratory or skin sensitisation

Sensitisation : Test Type: Buehler Test
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.
Method: OECD Test Guideline 406
Result: not sensitizing
GLP: yes

Germ cell mutagenicity

Genotoxicity in vitro : negative
Ames test, Salmonella typhimurium
Metabolic activation: yesMethod: OECD Test Guideline 471
GLP: yes

negative
Chromosome aberration test in vitro, Human lymphocytes
Metabolic activation: yesMethod: OECD Test Guideline 473
GLP: yes

Didecyldimethylammonium chloride (CAS-No.: 7173-51-5)

Acute toxicity

Acute oral toxicity (LD50) : 238 mg/kg
Species: Rat
Method: OECD Test Guideline 401
GLP: yes

Acute dermal toxicity (LD50) : 3,342 mg/kg
Species: Rabbit

Skin corrosion/irritation

Skin irritation : irritating
Species: Rabbit
Exposure time: 3 min
Assessment: Causes burns.
Method: OECD Test Guideline 404
GLP: yes

Respiratory or skin sensitisation

Sensitisation : Test Type: Buehler Test
Species: Guinea pig
Assessment: Did not cause sensitisation on laboratory animals.
Method: US-EPA
Result: not sensitizing
GLP: yes

Germ cell mutagenicity

Genotoxicity in vitro : negative
Ames test, Salmonella typhimurium
Metabolic activation: yesMethod: OECD Test Guideline 471
GLP: yes

negative
Chromosome aberration test in vitro, Chinese hamster ovary cells
Metabolic activation: yesGLP: yes

negative
Gene mutation, Chinese hamster ovary cells
Metabolic activation: yesGLP: yes

Genotoxicity in vivo : negative
Chromosome aberration test in vivo
Application Route: Oral
Species: Rat
Dose: 600 mg/kgMethod: OECD Test Guideline 475
GLP: yes

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish	:	Remarks: no data available
Toxicity to daphnia and other aquatic invertebrates (EC50)	:	0.058 mg/l Species: Daphnia magna (Water flea) Exposure time: 48 h

Persistence and degradability

Biodegradability	:	Test Type: Modified Sturm Test Biodegradation: 99 % Exposure time: 28 d Method: US-EPA GLP: yes

Bioaccumulative potential

Bioaccumulation	:	Remarks: no data available

Components:

Ethanol

Partition coefficient: n-octanol/water	:	log Pow: -0.3

Mobility in soil

Distribution among environmental compartments	:	Remarks: no data available

Other adverse effects

Results of PBT and vPvB assessment	:	This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).
Additional ecological information	:	Information given is based on data on the components and the ecotoxicology of similar products.

The following ecotoxicological data refer to:

Didecyldimethylammonium chloride (CAS-No.: 7173-51-5)

Ecotoxicity

Toxicity to fish (LC50)	:	0.19 mg/l Species: Pimephales promelas (fathead minnow) Acute toxicity Exposure time: 96 h Analytical monitoring: yes Method: US-EPA GLP: yes
Toxicity to fish (NOEC)		0.032 mg/l Species: Danio rerio (zebra fish) Chronic toxicity Exposure time: 34 d Analytical monitoring: yes Method: OECD Test Guideline 210 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (EC50)	:	0.062 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h Analytical monitoring: yes Method: EPA-FIFRA GLP: yes
Toxicity to daphnia and other aquatic invertebrates (NOEC)	:	0.010 mg/l Species: Daphnia magna (Water flea) Reproduction Test Exposure time: 21 d Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes
Toxicity to algae (ErC50)	:	0.026 mg/l Species: Pseudokirchneriella subcapitata (green algae) Growth inhibition Exposure time: 96 h Test Type: Growth inhibition Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1
Toxicity to bacteria (EC50)	:	11 mg/l Species: activated sludge Respiration inhibition Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209 GLP: yes
Toxicity to soil dwelling organisms	:	NOEC (Eisenia fetida (earthworms)): >= 1,000 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207 GLP: yes

Plant toxicity : EC50: 283 - 1,670 mg/kg
Exposure time: 14 d
End point: Growth inhibition
Method: OECD Test Guideline 208

Persistence and degradability

Biodegradability : Test Type: Modified Sturm Test
Concentration: 10 mg/l
Result: Readily biodegradable
Biodegradation: 72 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

Test Type: Die-Away Test
Concentration: 0.016 mg/l
Biodegradation: 93.3 %
Exposure time: 28 d
GLP: yes

Test Type: OECD Confirmatory Test
Biodegradation: 91 %
Exposure time: 24 - 70 d
Method: OECD Test Guideline 303 A
GLP: no

Remarks: The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Stability in water : Test Type: Abiotic degradation
Method: EPA-FIFRA
GLP: yes

Bioaccumulative potential

no data available

Mobility in soil

Distribution among environmental compartments : Mobility in soil
Method: US-EPA

Other adverse effects

no data available

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides (CAS-No.: 68424-85-1)

Ecotoxicity

Toxicity to fish (LC50)	:	0.28 mg/l Species: Pimephales promelas (fathead minnow) Acute toxicity Exposure time: 96 h Analytical monitoring: yes Method: US-EPA GLP: yes
Toxicity to fish (NOEC)		0.032 mg/l Species: Pimephales promelas (fathead minnow) Early-life Stage Exposure time: 34 d Analytical monitoring: yes Method: EPA-FIFRA GLP: yes
Toxicity to daphnia and other aquatic invertebrates (EC50)	:	0.016 mg/l Species: Daphnia magna (Water flea) Immobilization Exposure time: 48 h Analytical monitoring: yes Method: OECD Test Guideline 202 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (NOEC)	:	0.0042 mg/l Species: Daphnia magna (Water flea) Reproduction Test Exposure time: 21 d Analytical monitoring: yes Method: EPA-FIFRA GLP: yes
Toxicity to algae (ErC50)	:	0.049 mg/l Species: Pseudokirchneriella subcapitata (green algae) Cell multiplication inhibition test Exposure time: 72 h Test Type: Cell multiplication inhibition test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: yes
Toxicity to algae (EC50)		0.12 mg/l Species: Lemna gibba Growth inhibition Exposure time: 7 d Test Type: Growth inhibition Analytical monitoring: yes Method: US-EPA

Toxicity to algae (ErC50)		0.089 mg/l Species: algae Growth inhibition Exposure time: 96 h Test Type: Growth inhibition Analytical monitoring: yes Method: US-EPA GLP: yes
M-Factor (Acute aquatic toxicity)	:	10
M-Factor (Chronic aquatic toxicity)	:	1
Toxicity to bacteria (EC50)	:	7.75 mg/l Species: activated sludge Respiration inhibition Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209 GLP: yes
Toxicity to soil dwelling organisms	:	LC50 (Eisenia fetida (earthworms)): 7,070 mg/kg Exposure time: 14 d Method: OECD Test Guideline 207 EC50: > 1,000 mg/kg Exposure time: 28 d Method: OECD Test Guideline 216 GLP: yes
Plant toxicity	:	EC50: 277 - 1,900 mg/kg Exposure time: 14 d End point: Growth inhibition Method: OECD Test Guideline 208

Persistence and degradability

Biodegradability	:	Test Type: OECD Confirmatory Test Biodegradation: > 90 % Method: OECD Test Guideline 303 A Test Type: Modified SCAS Test Biodegradation: > 99 % Exposure time: 7 d Method: OECD Test Guideline 302 A GLP: yes Test Type: CO2 Evolution Test Concentration: 5 mg/l Result: Readily biodegradable Biodegradation: 95.5 % Exposure time: 28 d Method: OECD Test Guideline 301B GLP: no Remarks: The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Stability in water	:	Method: EPA-FIFRA GLP: yes

Bioaccumulative potential

no data available

Mobility in soil

Distribution among environmental compartments	:	Adsorption/Soil Method: EPA-FIFRA

Other adverse effects

no data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with local regulations. Contact waste disposal services.
Contaminated packaging	:	Triple rinse containers.

SECTION 14. TRANSPORT INFORMATION

IATA

UN number	: 2920
Proper shipping name	: Corrosive liquid, flammable, n.o.s. (Quaternary ammonium compounds, Ethanol)
Transport hazard class	: 8
Packing group	: II
Labels	: 8 (3)
Environmental hazards	: no

IMDG

UN number	: 2920
Proper shipping name	: Corrosive liquid, flammable, n.o.s. (Quaternary ammonium compounds, Ethanol)
Transport hazard class	: 8
Packing group	: II
Labels	: 8 (3)
EmS Number 1	: F-E
EmS Number 2	: S-C
Environmental hazards	: Marine pollutant: yes

ADR

UN number	: 2920
Proper shipping name	: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Quaternary ammonium compounds, Ethanol)
Transport hazard class	: 8
Packing group	: II
Classification Code	: CF1
Hazard Identification Number	: 83
Labels	: 8 (3)
Environmental hazards	: yes

RID

UN number	: 2920
Proper shipping name	: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Quaternary ammonium compounds, Ethanol)
Transport hazard class	: 8
Packing group	: II
Classification Code	: CF1
Hazard Identification Number	: 83
Labels	: 8 (3)
Environmental hazards	: yes

DOT

UN number	:	1903
Proper shipping name	:	Disinfectants, liquid, corrosive n.o.s. (Quaternary ammonium compounds)
Transport hazard class	:	8
Packing group	:	II
Labels	:	8
Emergency Response Guidebook Number	:	153
Environmental hazards	:	no

TDG

UN number	:	2920
Proper shipping name	:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Quaternary ammonium compounds, Ethanol)
Transport hazard class	:	8
Packing group	:	II
Labels	:	8 (3)
Environmental hazards	:	no

Special precautions for user	:	none
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	:	Not applicable

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word	:	DANGER!
Hazard statements	:	Corrosive. Causes irreversible eye damage. May be fatal if absorbed through skin. May be fatal if inhaled. Corrosive. Causes skin burns. This pesticide is toxic to fish.
EPA No.	:	6836-67
WHMIS Classification	:	E: Corrosive Material B2: Flammable liquid

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards	:	Acute Health Hazard Fire Hazard

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313

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.

US State Regulations

Massachusetts Right To Know

Ethanol	64-17-5	10 - 20 %

Pennsylvania Right To Know

Ethanol	64-17-5	

Pennsylvania Right To Know

Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	30 - 50 %
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	30 - 50 %
Ethanol	64-17-5	10 - 20 %
Water	7732-18-5	10 - 20 %

New Jersey Right To Know

Ethanol	64-17-5	

New Jersey Right To Know

Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	30 - 50 %
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	30 - 50 %
Ethanol	64-17-5	10 - 20 %
Water	7732-18-5	10 - 20 %

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer., WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ethanol	64-17-5

The components of this product are reported in the following inventories:

: This product can only be used commercially in the EPA registered application(s) noted on the product label.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Revision Date : 2015.09.15

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance 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 process, unless specified in the text.