

Bardac™ 2250

Version 1.3

SDS Number: CO00001534

Revision Date: 2016.02.08

SECTION 1. IDENTIFICATION

Commercial Product Name : BARDAC 2250
Product name : Bardac™ 2250
Product code : CO00001534

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
Skin corrosion : Category 1B
Eye irritation : Category 2A

GHS label elements

Hazard pictograms



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

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H319 Causes serious eye irritation.

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/doctor 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/doctor.
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/doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P363 Wash contaminated clothing 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 (%) |
|----------------------------------|-----------|-------------------|
| Didecyldimethylammonium chloride | 7173-51-5 | 50.00 |
| Ethanol | 64-17-5 | 10.00 |
| Water | 7732-18-5 | 40.00 |

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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).
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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.

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- 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 : 18.3 - 35.0 °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/m ³ | NIOSH/GUIDE |
| | | PEL | 1,000 ppm 1,900 mg/m ³ | OSHA_TRANS |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | 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 : alcohol-like

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| | | |
|--|---|--|
| Odour Threshold | : | no data available |
| pH | : | 6.5 - 9, Concentration: 100 g/l (25 °C) |
| setting point | : | -20 °C |
| Melting point/range | : | -18.9 °C |
| Boiling point/boiling range | : | no data available |
| Flash point | : | 43 °C Method: Setafash Closed Tester (ASTM D3278), closed cup Does not sustain combustion according to ASTM 4206 |
| 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/cm ³ (25 °C) |
| Solubility(ies) | : | |
| Water solubility | : | completely soluble |
| Partition coefficient: n-octanol/water | : | no data available |
| Auto-ignition temperature | : | no data available |
| Decomposition temperature | : | no data available |
| Viscosity | : | |
| Viscosity, dynamic | : | < 100 mPa.s (25 °C) |
| Viscosity, kinematic | : | no data available |

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 | : | Nitrogen oxides (NO _x) hydrochloric acid Carbon oxides |

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SECTION 11. TOXICOLOGICAL INFORMATION

| | | |
|--|---|---|
| Information on likely routes of exposure | : | Inhalation Ingestion Eyes Skin |
| Acute toxicity | | |
| Acute oral toxicity (LD50) | : | 450 mg/kg Species: Rat |
| Acute dermal toxicity (LD50) | : | 4,300 mg/kg Species: Rabbit |
| Skin corrosion/irritation | | |
| Skin irritation | : | Corrosive Species: Rabbit Exposure time: 4 h Method: OECD Test Guideline 404 GLP: yes |
| Serious eye damage/eye irritation | | |
| Eye irritation | : | severe irritant Species: Rabbit |
| Respiratory or skin sensitisation | | |
| Sensitisation | : | Test Type: Buehler Test Species: Guinea pig Result: not sensitizing |
| Germ cell mutagenicity | | |
| Genotoxicity in vitro | : | not mutagenic Ames test, Salmonella |
| Germ cell mutagenicity- Assessment | : | not mutagenic |
| Carcinogenicity - Assessment | : | |

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

| | | |
|--|---|---|
| Toxicity to fish (LC50) | : | Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates (EC50) | : | 0.94 mg/l Species: Daphnia magna (Water flea) Exposure time: 48 h |
| Toxicity to terrestrial organisms | : | LC50: > 5,620.000 ppm End point: Subacute toxicity |

Persistence and degradability

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no data available

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 : no data available

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

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| | |
|--|--|
| Toxicity to daphnia and other aquatic invertebrates (NOEC) | : 0.010 mg/l Species: <i>Daphnia magna</i> (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: <i>Pseudokirchneriella subcapitata</i> (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 (<i>Eisenia fetida</i> (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 |
| Toxicity to terrestrial organisms | : Oral LD50(Bobwhite quail): = 229 mg/kg Dietary LC50(Mallard duck): > 5,620 ppm Dietary LC50(Bobwhite quail): > 5,620 ppm |

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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 : Mobile in soils
Method: US-EPA

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 : Dispose of as unused product.

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SECTION 14. TRANSPORT INFORMATION**IATA**

UN number : 2920
Proper shipping name : Corrosive liquid, flammable, n.o.s.
(Didecyldimethylammonium chloride, 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.
(Didecyldimethylammonium chloride, 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.
(Didecyldimethylammonium chloride, 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.
(Didecyldimethylammonium chloride, Ethanol)
Transport hazard class : 8
Packing group : II
Classification Code : CF1
Hazard Identification Number : 83
Labels : 8 (3)
Environmental hazards : yes

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DOT

UN number : 1903
Proper shipping name : Disinfectants, liquid, corrosive n.o.s.
 (Didecyldimethylammonium chloride)
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.
 (Didecyldimethylammonium chloride, cont. 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 : Causes substantial but temporary eye injury.
 Harmful if absorbed through skin.
 May be fatal if inhaled.
 Corrosive. Causes skin burns.
 Corrosive. Causes irreversible eye damage.
 This pesticide is toxic to fish.
EPA No. : 6836-51
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

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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 |
|---------|---------|

Pennsylvania Right To Know

| | |
|---------|---------|
| Ethanol | 64-17-5 |
|---------|---------|

New Jersey Right To Know

| | |
|---------|---------|
| Ethanol | 64-17-5 |
|---------|---------|

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.
- : This product is regulated under the following section(s) of the Code of Federal Regulations (CFR) as an incidental food additive:
 - : 21 CFR 178.1010

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 : 2016.02.08

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.