



MATERIAL SAFETY DATA SHEET

BELSPERSE 161

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME BELSPERSE 161
CHEMICAL NAME Phosphinocarboxylic acid
PRODUCT NO. 100358, 100359, 100360, 100361, 100362, 100747, 101264
PRODUCT USE Industrial Water Treatment
SUPPLIER BWA Water Additives US LLC
1979 Lakeside Parkway
Suite 925, Tucker, GA30084.
T: (800) 600-4523 .
(Technical/commercial enquiries)
E: MSDS@wateradditives.com
EMERGENCY TELEPHONE Chemtrec Phone: 1-800-424-9300

2 HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

INHALATION

No specific health warnings noted.

INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting.

SKIN CONTACT

Non Irritant

Not a Skin Sensitiser

EYE CONTACT

Non irritant

HEALTH WARNINGS

No specific health warnings noted.

ROUTE OF ENTRY

Skin and/or eye contact. Ingestion. Inhalation.

3 COMPOSITION/INFORMATION ON INGREDIENTS

COMPOSITION COMMENTS

Aqueous solution of phosphinocarboxylic acid

4 FIRST-AID MEASURES

INHALATION

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

INGESTION

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention if any discomfort continues.

SKIN CONTACT

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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EYE CONTACT

Rinse the eye with water immediately. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Water spray, fog or mist. Foam, carbon dioxide or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

SPECIFIC HAZARDS

The product is non-combustible. If heated, irritating vapors may be formed.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Follow precautions for safe handling described in this material safety data sheet. For personal protection, see section 8.

ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment. To prevent release, place container with damaged side up.

SPILL CLEAN UP METHODS

Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

7 HANDLING AND STORAGE

HANDLING

Avoid spilling, skin and eye contact. Observe good chemical hygiene practices.

STORAGE

Store separated from: Alkalis. Cyanides. Reducing Agents. Do NOT use container made of: Carbon steel. Keep containers tightly closed. Protect from light, including direct sunrays.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

No exposure limits noted for ingredient(s).

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide sufficient ventilation during operations which cause vapor formation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

HAND PROTECTION

Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances.

Gloves should be replaced immediately if signs of degradation are observed.

It has been found that gloves made from rubber, neoprene or PVC provide short-term splash protection.

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EYE PROTECTION

Wear approved safety goggles.

OTHER PROTECTION

Wear appropriate clothing to prevent repeated or prolonged skin contact.

HYGIENE MEASURES

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

9 PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---------------------|
| APPEARANCE | Liquid |
| COLOR | Colourless. |
| ODOR | Slight odor. |
| SOLUBILITY | Miscible with water |
| BOILING POINT (°C) | 103 |
| RELATIVE DENSITY | 1.20 - 1.28 @ 20 °C |
| pH-VALUE, CONC. | 3 - 5 |
| SOLUTION | |
| PARTITION COEFFICIENT (N-Octanol/Water) | <0 |

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Reacts with alkalis and generates heat.

MATERIALS TO AVOID

Strong alkalis. Cyanides. Strong reducing agents.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 > 5000 mg/kg (oral rat)

TOXICOLOGICAL INFORMATION

A 90 day toxicity study was conducted in rats with the material administered daily by oral gavage at 0, 100, 500, 2500 mg/kg/day. The no observed effect level (NOEL) was 100 mg/kg/day, with changes in levels of phosphorus in the blood and urine being reported at 500 mg/kg/day. Bone damage and kidney degeneration which did not reverse during recovery were reported at 2500mg/kg/day. Product was not genotoxic in standard tests.

INHALATION

No specific health warnings noted.

INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting.

SKIN CONTACT

Non Irritant

Not a Skin Sensitiser

EYE CONTACT

Non irritant

HEALTH WARNINGS

No specific health warnings noted.

12 ECOLOGICAL INFORMATION

| | |
|---------------------------------|-------|
| LC 50, 96 Hrs, FISH mg/l | >1000 |
| EC 50, 48 Hrs, DAPHNIA, mg/l | >320 |

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IC 50, 72 Hrs, ALGAE, mg/l 130

DEGRADABILITY

Not readily biodegradable

13 DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

Liquid material should be incinerated. Material absorbed onto sand or earth should be disposed of as solid waste in accordance with local regulations. Empty packaging may contain product residues and due consideration should be given prior to disposal.

14 TRANSPORT INFORMATION

| | |
|--|---|
| TRANSPORT NOTES | The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, DOT). |
| RAIL TRANSPORT NOTES | Not Classified |
| SEA TRANSPORT NOTES | Not Classified |
| AIR TRANSPORT NOTES | Not Classified |
| ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT | No. |
| DOT HAZARD CLASS | Not regulated. |
| U.S DOT HAZARD LABEL | No DOT label requirement noted |
| MARINE POLLUTANT | No. |

15 REGULATORY INFORMATION

INVENTORIES

| COMPONENT | CAN | US | EU | AUS | JAP | KOR | CHN | PHLP |
|---|-----|------|--------|------|------|------|------|------|
| HOMOPOLYMER OF PHOSPHINOCARBOXYLIC ACID | DSL | Yes. | EINECS | Yes. | Yes. | Yes. | Yes. | Yes. |

US FEDERAL REGULATIONS

| COMPONENT | SARA 302-TPC | CERCLA-RQ | SARA 313 |
|---|--------------|-----------|----------|
| HOMOPOLYMER OF PHOSPHINOCARBOXYLIC ACID | No | No | No. |

US STATE REGULATIONS

| COMPONENT | CAS | CA | FL | MA | MN | NJ | PA | RI |
|---|-----|----|------|------|------|------|------|------|
| HOMOPOLYMER OF PHOSPHINOCARBOXYLIC ACID | | No | Yes. | Yes. | Yes. | Yes. | Yes. | Yes. |

REGULATORY STATUS (US)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required. TSCA: The ingredients of this product are on the TSCA Inventory.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

LABEL(S) FOR SUPPLY

BELSPERSE 161

Not Classified According to
WHMIS.

CONTROLLED PRODUCT CLASSIFICATION

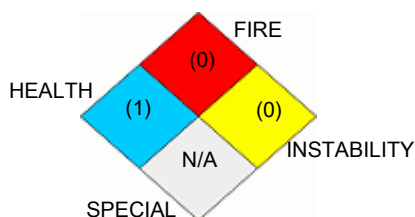
WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

16 OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

| | |
|---------------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| PHYSICAL | 0 |
| PERSONAL PROTECTION | C |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



GENERAL INFORMATION

For advice on chemical emergencies, spillages, fires or first aid in relation to this product please contact the relevant emergency number below :

EU/English Speakers - +44 (0) 1235 239 670 (NCEC)

Arabic Speakers - +44 (0) 1235 239 671

Asia/Pacific countries - +65 3158 1074

For emergencies within China - +86 10 5100 3039

REVISION COMMENTS

Updated MSDS, no substantial changes. Part Numbers Updated

ISSUED BY

S.G.

REVISION DATE June 13, 2012

VERSION No. 2

SDS NO. 11344

MATERIAL SAFETY DATA SHEET STATUS

Approved.

DISCLAIMER

For safety reasons it is IMPERATIVE that customers:-

1. Ensure that all those within their control who use the products are supplied with all relevant information contained within the Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions and warnings contained therein.

2. Consult BWA Water Additives before using or supplying the product for any other applications. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.