



CENTURION / AMIGO CO-PACK

SDS Number: 102000016186
Version 2.0
Revision Date: 10/07/2016

Co-Pack with these Product Safety Data Sheets:

Safety Data Sheet
**CENTURION® EMULSIFIABLE CONCENTRATE POST-
EMERGENCE HERBICIDE**

SDS Number: 102000001713
Version 2.0
Revision Date: 09/09/2016

Safety Data Sheet
AMIGO® ADJUVANT

SDS Number: 102000013846
Version 2.0
Revision Date: 10/06/2016

SAFETY DATA SHEET



CENTURION® EMULSIFIABLE CONCENTRATE POST-EMERGENCE HERBICIDE

Version 2.0 / CDN
102000001713

1/12
Revision Date: 09/09/2016
Print Date: 09/09/2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name CENTURION® EMULSIFIABLE CONCENTRATE POST-EMERGENCE HERBICIDE

Product code (UVP) 05923468

SDS Number 102000001713

PCP Registration No. 27598

Relevant identified uses of the substance or mixture and uses advised against

Use Herbicide

Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-888-283-6847

SECTION 2: HAZARDS IDENTIFICATION

Classified in accordance with Part 2 of the Hazardous Products Regulations

Aspiration hazard: Category 1
Skin irritation: Category 2
Carcinogenicity: Category 2
Specific target organ toxicity - repeated exposure: Category 2
Eye irritation: Category 2B
Flammable liquids: Category 4

Labelling in accordance with Part 3 of the Hazardous Products Regulations



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Signal word: Danger

Hazard statements

May be fatal if swallowed and enters airways.
Causes skin irritation.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.
Causes eye irritation.
Combustible liquid.

Precautionary statements

Wash thoroughly after handling.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mist or vapours.
Keep away from open flames/hot surfaces. - No smoking.
IF SWALLOWED: Immediately call a POISON CENTER/doctor/ physician.
Do NOT induce vomiting.
IF ON SKIN: Wash with plenty of water/ soap.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
IF exposed or concerned: Get medical advice/ attention.
Get medical advice/ attention if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Store locked up.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|---|------------|---------------------------|
| Clethodim | 99129-21-2 | 26.4 |
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | 59.6 – 59.9 |
| 1,2,4-Trimethylbenzene | 95-63-6 | 5.9 |
| Anionic/nonionic surfactant mixture | | 2.46 |
| Naphthalene | 91-20-3 | 1.06 |

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SECTION 4: FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|---|
| General advice | When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. |
| Inhalation | Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately. |
| Skin contact | Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately. |
| Eye contact | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended. |

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|--|
| Symptoms | Inhalation may provoke the following symptoms:, Irritation, Cough, Shortness of breath |
|-----------------|--|

Indication of any immediate medical attention and special treatment needed

| | |
|------------------|---|
| Risks | Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard. |
| Treatment | Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote. |

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

| | |
|-------------------|--|
| Suitable | Water spray, Carbon dioxide (CO ₂), Foam, Dry chemical |
| Unsuitable | High volume water jet |

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| | |
|--|---|
| Special hazards arising from the substance or mixture | Dangerous gases are evolved in the event of a fire., The product is combustible. |
| Advice for firefighters | |
| Special protective equipment for firefighters | Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing. |
| Further information | Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Do not allow run-off from fire fighting to enter drains or water courses. |
| Flash point | 62.8 °C |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Explosivity | Not explosive |

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Remove all sources of ignition. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Contaminated soil may have to be removed and disposed.

Additional advice Use personal protective equipment. If material is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

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| | |
|---|--|
| Advice on safe handling | Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation. |
| Advice on protection against fire and explosion | Keep away from heat and sources of ignition. In use, may form flammable/explosive vapour-air mixture. |
| Hygiene measures | Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing. |
| Conditions for safe storage, including any incompatibilities | |
| Requirements for storage areas and containers | Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. |

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Components | CAS-No. | Control parameters | Update | Basis |
|--|------------|----------------------------------|---------|------------|
| Distillates (petroleum), hydrotreated light (Vapor.) | 64742-47-8 | 200 mg/m ³ (TWA) | 07 2009 | CAD AB OEL |
| Distillates (petroleum), hydrotreated light (Non-aerosol.) | 64742-47-8 | 200 mg/m ³ (TWA) | 09 2011 | CAD BC OEL |
| Distillates (petroleum), hydrotreated light (Non-aerosol.) | 64742-47-8 | 200 mg/m ³ (TWA) | 03 2011 | CAD MB OEL |
| Distillates (petroleum), hydrotreated light (Non-aerosol.) | 64742-47-8 | 200 mg/m ³ (TWA) | 03 2011 | CAD MB OEL |
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 525 mg/m ³ (TWAEV) | 11 2010 | CAD ON OEL |
| Distillates (petroleum), hydrotreated light (Non-aerosol.) | 64742-47-8 | 200 mg/m ³ (TWAEV) | 11 2010 | CAD ON OEL |
| Distillates (petroleum), hydrotreated light (Non-aerosol.) | 64742-47-8 | 200 mg/m ³ (TWAEV) | 11 2010 | CAD ON OEL |
| Distillates (petroleum), hydrotreated light (Vapor.) | 64742-47-8 | 200 mg/m ³ (8 HR ACL) | 05 2009 | CAD SK OEL |

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| | | | | |
|--|------------|---------------------------|---------|---------------|
| Distillates (petroleum), hydrotreated light (Vapor.) | 64742-47-8 | 250 mg/m3 (15 MIN ACL) | 05 2009 | CAD SK OEL |
| Naphthalene | 91-20-3 | 52 mg/m3/10 ppm (TWA) | 07 2009 | CAD AB OEL |
| Naphthalene | 91-20-3 | 79 mg/m3/15 ppm (STEL) | 07 2009 | CAD AB OEL |
| Naphthalene | 91-20-3 | 10 ppm (TWA) | 09 2011 | CAD BC OEL |
| Naphthalene | 91-20-3 | 15 ppm (STEL) | 09 2011 | CAD BC OEL |
| Naphthalene | 91-20-3 | 10 ppm (TWA) | 03 2011 | CAD MB OEL |
| Naphthalene | 91-20-3 | 15 ppm (STEV) | 11 2010 | CAD ON OEL |
| Naphthalene | 91-20-3 | 10 ppm (TWA EV) | 11 2010 | CAD ON OEL |
| Naphthalene | 91-20-3 | 10 ppm (8 HR ACL) | 05 2009 | CAD SK OEL |
| Naphthalene | 91-20-3 | 15 ppm (15 MIN ACL) | 05 2009 | CAD SK OEL |
| Naphthalene | 91-20-3 | 79 mg/m3/15 ppm (STEL) | 11 2011 | OEL (QUE) |
| Naphthalene | 91-20-3 | 52 mg/m3/10 ppm (TWA) | 11 2011 | OEL (QUE) |
| Naphthalene | 91-20-3 | 10 ppm (TLV) | | OES BCS* |
| Trimethyl benzene (all Isomers) | 25551-13-7 | 123 mg/m3/25 ppm (TWA) | 07 2009 | CAD AB OEL |
| Trimethyl benzene (all Isomers) | 25551-13-7 | 25 ppm (TWA) | 09 2011 | CAD BC OEL |
| Trimethyl benzene (all Isomers) | 25551-13-7 | 25 ppm (TWA) | 03 2011 | CAD MB OEL |
| Trimethyl benzene (all Isomers) | 25551-13-7 | 25 ppm (TWA EV) | 11 2010 | CAD ON OEL |

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| | | | | |
|---------------------------------|------------|--|---------|---------------|
| Trimethyl benzene (all Isomers) | 25551-13-7 | 25 ppm (8 HR ACL) | 05 2009 | CAD SK OEL |
| Trimethyl benzene (all Isomers) | 25551-13-7 | 30 ppm (15 MIN ACL) | 05 2009 | CAD SK OEL |
| Trimethyl benzene (all Isomers) | 25551-13-7 | 123 mg/m ³ /25 ppm (TWA) | 11 2011 | OEL (QUE) |

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

Hand protection

Chemical resistant nitrile rubber gloves

Eye protection

Tightly fitting safety goggles

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.

General protective measures

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.
Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------------|-------------------------------------|
| Appearance | beige to brown |
| Physical State | liquid slightly viscous |
| Odor | hydrocarbon-like aromatic |
| Odour Threshold | No data available |
| pH | 4.11 at 1 % (25 °C) |
| Vapor Pressure | No data available |
| Vapor Density (Air = 1) | No data available |
| Density | ca. 0.96 g/cm ³ at 20 °C |
| Evaporation rate | No data available |
| Boiling Point | No data available |
| Melting / Freezing Point | No data available |
| Water solubility | insoluble |

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| | |
|---|-------------------------|
| Solubility in other solvents | Soluble in hydrocarbons |
| Minimum Ignition Energy | Not applicable |
| Decomposition temperature | No data available |
| Partition coefficient: n-octanol/water | No data available |
| Viscosity | 6 mPaxs at 25 °C |
| Flash point | 62.8 °C |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Explosivity | Not explosive |

SECTION 10: STABILITY AND REACTIVITY

Reactivity

| | |
|---|---|
| Thermal decomposition | No data available |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No hazardous reactions when stored and handled according to prescribed instructions. |
| Conditions to avoid | Heat, flames and sparks. Extremes of temperature and direct sunlight. |
| Incompatible materials | Oxidizing agents, Metals, Acids, Bases |
| Hazardous decomposition products | Thermal decomposition can lead to release of: Nitrogen oxides (NOx) Hydrogen chloride (HCl) Carbon dioxide (CO2) Sulphur oxides Chlorine compounds |

SECTION 11: TOXICOLOGICAL INFORMATION

| | |
|--------------------------|---------------------------------------|
| Exposure routes | Eye contact, Skin contact, Inhalation |
| Immediate Effects | |
| Eye | Causes eye irritation. |
| Skin | Causes skin irritation. |

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Information on toxicological effects

| | |
|----------------------------------|--|
| Acute oral toxicity | LD50 (female Rat) 2,920 mg/kg LD50 (male Rat) 3,610 mg/kg |
| Acute inhalation toxicity | LC50 (Rat) > 5.4 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. |
| Acute dermal toxicity | LD50 (Rabbit) > 5,000 mg/kg |
| Skin irritation | Moderate skin irritation. (Rabbit) |
| Eye irritation | Severe eye irritation. (Rabbit) |
| Sensitisation | Non-sensitizing. (Mouse) |

Assessment STOT Specific target organ toxicity – repeated exposure

Clethodim did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Clethodim was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Clethodim was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

| | | |
|---|------------|----------|
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | Group A3 |
| Naphthalene | 91-20-3 | Group A3 |

NTP

| | |
|-------------|---------|
| Naphthalene | 91-20-3 |
|-------------|---------|

IARC

| | | |
|-------------|---------|------------------------|
| Naphthalene | 91-20-3 | Overall evaluation: 2B |
|-------------|---------|------------------------|

OSHA

None.

Assessment toxicity to reproduction

Clethodim did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Clethodim caused developmental toxicity only at dose levels toxic to the dams.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

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SECTION 12: ECOLOGICAL INFORMATION

| | |
|--|---|
| Toxicity to fish | LC50 (Lepomis macrochirus (Bluegill sunfish)) > 33 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient clethodim. |
| Toxicity to aquatic invertebrates | EC50 (Daphnia (water flea)) 20.2 mg/l The value mentioned relates to the active ingredient clethodim. |
| Toxicity to aquatic plants | ErC50 (Scenedesmus quadricauda (Green algae)) 11.4 mg/l The value mentioned relates to the active ingredient clethodim. |
| Biodegradability | Clethodim: rapidly biodegradable |
| Koc | Clethodim: Koc: 3 - 43 |
| Bioaccumulation | Clethodim: Bioconcentration factor (BCF) 2.1 Does not bioaccumulate. |
| Mobility in soil | Clethodim: Highly mobile in soils |
| Environmental precautions | Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not allow to get into surface water, drains and ground water. Do not apply when weather conditions favor runoff or drift. Apply this product as specified on the label. |

SECTION 13: DISPOSAL CONSIDERATIONS

| | |
|--------------------------------|---|
| Waste treatment methods | |
| Product | Follow container label instructions for disposal of wastes generated during use in compliance with the product label. Dispose in accordance with all local, state/provincial and federal regulations. |
| Contaminated packaging | Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet. |

SECTION 14: TRANSPORT INFORMATION

TDG Not dangerous goods / not hazardous material

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49CFR

NA-Number **1993**
Packaging group **III**
Proper shipping name **COMBUSTIBLE LIQUID, N.O.S.
(SOLVENT NAPHTHA (PETROLEUM) HEAVY AROMATIC,
NAPHTHALENE)**
RQ **Reportable Quantity is reached with 9,232 lb of product.**

IMDG

Not dangerous goods / not hazardous material

IATA

Not dangerous goods / not hazardous material

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

SECTION 15: REGULATORY INFORMATION

PCP Registration No. 27598

US Federal Regulations

TSCA list

None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

| | | |
|------------------------|---------|-----------|
| 1,2,4-Trimethylbenzene | 95-63-6 | 10,000lbs |
| Naphthalene | 91-20-3 | |

US States Regulatory Reporting

CA Prop65

This product contains a chemical known to the State of California to cause cancer.

| | |
|-------------|---------|
| Naphthalene | 91-20-3 |
|-------------|---------|

US State Right-To-Know Ingredients

| | | |
|---|------------|------------------------|
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 | CA, CT, MN, NJ |
| 1,2,4-Trimethylbenzene | 95-63-6 | CA, MN, NJ, RI |
| Naphthalene | 91-20-3 | CA, CT, IL, MN, NJ, RI |

Canadian Regulations

Canadian Domestic Substance List

| | |
|---|------------|
| Solvent Naphtha (petroleum), heavy aromatic | 64742-94-5 |
| 1,2,4-Trimethylbenzene | 95-63-6 |
| Naphthalene | 91-20-3 |

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Environmental

CERCLA

Naphthalene 91-20-3 100 lbs

Clean Water Section 307 Priority Pollutants

Naphthalene 91-20-3

Safe Drinking Water Act Maximum Contaminant Levels

Naphthalene 91-20-3

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

| | |
|---------|---|
| 49CFR | Code of Federal Regulations, Title 49 |
| ACGIH | US. ACGIH Threshold Limit Values |
| ATE | Acute toxicity estimate |
| CAS-Nr. | Chemical Abstracts Service number |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| EINECS | European inventory of existing commercial substances |
| ELINCS | European list of notified chemical substances |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| N.O.S. | Not otherwise specified |
| NTP | US. National Toxicology Program (NTP) Report on Carcinogens |
| OECD | Organization for Economic Co-operation and Development |
| TDG | Transportation of Dangerous Goods |
| TWA | Time weighted average |
| UN | United Nations |
| WHO | World health organisation |

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 2 Instability - 1 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 1 Flammability - 2 Physical Hazard - 1 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current Canadian WHMIS standard (WHMIS 2015).

Prepared by the HSE Department of Bayer CropScience Inc. (306)-721-0310.

Revision Date: 09/09/2016

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name AMIGO® ADJUVANT
Product code (UVP) 05832593
SDS Number 102000013846
PCP Registration No. 22644

Relevant identified uses of the substance or mixture and uses advised against

Use Adjuvant
Restrictions on use See product label for restrictions.

Information on supplier

Supplier Bayer CropScience Inc
#200, 160 Quarry Park Blvd, SE
Calgary, Alberta T2C 3G3
Canada
Responsible Department Email: SDSINFO.BCS-NA@bayer.com
Emergency telephone no.
Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577
Product Information Telephone Number 1-888-283-6847

SECTION 2: HAZARDS IDENTIFICATION

Classified in accordance with Part 2 of the Hazardous Products Regulations

Skin irritation: Category 2
Eye irritation: Category 2A

Labelling in accordance with Part 3 of the Hazardous Products Regulations



Signal word: Warning

Hazard statements

Causes skin irritation.
Causes serious eye irritation.

Precautionary statements

Wash thoroughly after handling.

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Wear protective gloves/ eye protection/ face protection.
IF ON SKIN: Wash with plenty of water.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/ attention.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Hazardous Component Name | CAS-No. | Concentration % by weight |
|----------------------------|---------|---------------------------|
| Phosphate ester surfactant | | 30.0 |

SECTION 4: FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|---|
| General advice | When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment. |
| Inhalation | Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately. |
| Skin contact | Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately. |
| Eye contact | Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended. |

Most important symptoms and effects, both acute and delayed

Symptoms Irritation, Cough, Shortness of breath, Stomach pain

Indication of any immediate medical attention and special treatment needed

Treatment Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Carbon dioxide (CO₂), Dry powder, Foam, Water spray
Unsuitable High volume water jet

Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for firefighters Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point > 93.3 °C
Auto-ignition temperature No data available
Lower explosion limit No data available
Upper explosion limit No data available
Explosivity Not explosive

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Remove all sources of ignition. Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

Methods and materials for containment and cleaning up

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. If material is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

- Advice on safe handling** Use only in area provided with appropriate exhaust ventilation. Handle and open container in a manner as to prevent spillage.
- Advice on protection against fire and explosion** Keep away from heat and sources of ignition.
- Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers** Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No control parameters known.

Exposure controls

- Respiratory protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
- Hand protection** Chemical resistant nitrile rubber gloves
- Eye protection** Tightly fitting safety goggles
- Skin and body protection** Wear long-sleeved shirt and long pants and shoes plus socks.
- General protective measures** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.
Keep and wash PPE separately from other laundry.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|--------------------------------------|
| Appearance | yellow-orange |
| Physical State | Liquid |
| Odor | characteristic |
| Odour Threshold | No data available |
| pH | 2.46 at 1 % (as aqueous solution) |
| Vapor Pressure | No data available |
| Vapor Density (Air = 1) | No data available |
| Density | 0.965 g/cm ³ at 20 °C |
| Evaporation rate | No data available |
| Boiling Point | > 93.3 °C / 199.94 °F |
| Melting / Freezing Point | No data available |
| Water solubility | dispersible |
| Minimum Ignition Energy | Not applicable |
| Decomposition temperature | No data available |
| Partition coefficient: n-octanol/water | No data available |
| Viscosity | No data available |
| Flash point | > 93.3 °C |
| Auto-ignition temperature | No data available |
| Lower explosion limit | No data available |
| Upper explosion limit | No data available |
| Explosivity | Not explosive |

SECTION 10: STABILITY AND REACTIVITY

| | |
|---|--|
| Reactivity | |
| Thermal decomposition | No data available |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions | No hazardous reactions when stored and handled according to prescribed instructions. |

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| | |
|---|---|
| Conditions to avoid | Extremes of temperature and direct sunlight. Heat, flames and sparks. |
| Incompatible materials | Strong oxidizing agents, Strong bases, Strong acids, Metals |
| Hazardous decomposition products | Thermal decomposition can lead to release of: Oxides of phosphorus Carbon dioxide (CO ₂) Carbon monoxide Nitrogen oxides (NO _x) |

SECTION 11: TOXICOLOGICAL INFORMATION

| | |
|---|--|
| Exposure routes | Eye contact, Skin contact, Ingestion, Inhalation |
| Immediate Effects | |
| Eye | Severe eye irritation. |
| Skin | Severe skin irritation. |
| Ingestion | May cause nausea, vomiting, abdominal pain. |
| Inhalation | May cause respiratory tract irritation. |
| Information on toxicological effects | |
| Acute oral toxicity | LD50 (Rat) > 5,000 mg/kg |
| Acute inhalation toxicity | LC50 (Rat) > 5.1 mg/l Exposure time: 4 h |
| Acute dermal toxicity | LD50 (Rat) > 5,000 mg/kg |
| Skin irritation | Irritating to skin. |
| Eye irritation | Severe eye irritation. |
| Sensitisation | No data available |

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Further information

No further toxicological information is available.

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SECTION 12: ECOLOGICAL INFORMATION

| | |
|----------------------------------|--|
| Toxicity to fish | LC50 (Fish) > 1 mg/l |
| Chronic toxicity to fish | Fish NOEC: <= 1 mg/l |
| Environmental precautions | Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Apply this product as specified on the label. |

SECTION 13: DISPOSAL CONSIDERATIONS

| | |
|--------------------------------|--|
| Waste treatment methods | |
| Product | Dispose in accordance with all local, state/provincial and federal regulations. |
| Contaminated packaging | Do not re-use empty containers. Triple rinse containers. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet. |

SECTION 14: TRANSPORT INFORMATION

| | |
|----------------------|--|
| TDG | |
| UN number | 3082 |
| Labels | 9 |
| Packaging group | III |
| Marine pollutant | Marine pollutant |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHATE ESTER) |
| 49CFR | Not dangerous goods / not hazardous material |
| IMDG | |
| UN number | 3082 |
| Class | 9 |
| Packaging group | III |
| Marine pollutant | YES |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHATE ESTER SOLUTION) |

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IATA

| | |
|--------------------------|---|
| UN number | 3082 |
| Class | 9 |
| Packaging group | III |
| Environm. Hazardous Mark | YES |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PHOSPHATE ESTER SOLUTION) |

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

| | |
|---------------------|--|
| Further Information | Exempt from regulation when transported by road or rail, in accordance with TDG Regulations 1.45.1. This exemption provides that this product does not require dangerous goods shipping documentation or safety marks when transported on land by road or rail. |
|---------------------|--|

SECTION 15: REGULATORY INFORMATION

PCP Registration No. 22644

US Federal Regulations

TSCA list

None.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

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Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

| | |
|---------|---|
| 49CFR | Code of Federal Regulations, Title 49 |
| ACGIH | US. ACGIH Threshold Limit Values |
| ATE | Acute toxicity estimate |
| CAS-Nr. | Chemical Abstracts Service number |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| EINECS | European inventory of existing commercial substances |
| ELINCS | European list of notified chemical substances |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| N.O.S. | Not otherwise specified |
| NTP | US. National Toxicology Program (NTP) Report on Carcinogens |
| OECD | Organization for Economic Co-operation and Development |
| TDG | Transportation of Dangerous Goods |
| TWA | Time weighted average |
| UN | United Nations |
| WHO | World health organisation |

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2 Flammability - 1 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current Canadian WHMIS standard (WHMIS 2015).

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