SAFETY DATA SHEET

1. Identification

Product identifier **THIMET® 20-G SMARTBOX®**

Other means of identification

SDS number / PCPA # 338 / 29000

Synonyms THIMET® 20-G Soil and Systemic Insecticide * THIMET® 20-G LOCK'N LOAD® * THIMET® 20-G EZ LOAD

Recommended use Organophosphate insecticide.

Recommended restrictions This is a Restricted Use Pesticide and is for use by licensed applicators only.
Keep out of the Reach of Children!

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name AMVAC Chemical Corporation

Address 4100 E Washington Blvd
Los Angeles, CA 90023 USA

Telephone AMVAC Chemical Corp 323-264-3910
AMVAC Chemical Corp 323-268-1028 (FAX)

Website www.Amvac-Chemical.com

E-mail CustServ@Amvac-Chemical.com

Emergency phone number

Medical	888-681-4261
CHEMTREC® (USA+Canada)	800-424-9300
Product Use	888-462-6822
CHEMTREC® (Outside USA)	+1-703-527-3887

Supplier AMVAC Chemical Corporation.

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Acute toxicity, oral	Category 2
Acute toxicity, dermal	Category 2
Acute toxicity, inhalation	Category 1
Serious eye damage/eye irritation	Category 2B

Environmental hazards Not classified.

Label elements

Signal word Danger

Hazard statement Fatal if swallowed. Fatal in contact with skin. Causes eye irritation. Fatal if inhaled.

Precautionary statement

Prevention Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing. Wear respiratory protection.

Response If swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Specific treatment is urgent (see this label). If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. Collect spillage.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations. SmartBox® containers should be returned to the manufacturer by following the directions on the label. Lock'N Load containers should be returned to the manufacturer by following the directions on the label.
Other hazards	Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate)		298-02-2	20.0 %

Additional components	Common name and synonyms	CAS number	%
Chemical name			
Inert Ingredients (May contain clay which may contain >0.1% crystalline silica)		N/A	80 %

CLP: Regulation No. 1272/2008.
DSD: Directive 67/548/EEC.
M: M-factor
vPvB: very persistent and very bioaccumulative substance.
PBT: persistent, bioaccumulative and toxic substance.
*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret. #: This substance has been assigned Community workplace exposure limit(s).

Composition comments The full text for all R- and H-phrases is displayed in section 16.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately. Call a physician if symptoms develop or persist. Be sure the contact areas are clean to prevent contamination of the rescuer.

Skin contact Before washing use a dry brush to remove dust from skin. Take off immediately all contaminated clothing. Remove and isolate contaminated clothing and shoes. Wash the skin immediately with soap and water. Immediately flush skin with plenty of water. Use soap if available. Wash off with soap and water. Call a physician or poison control center immediately. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash contaminated clothing before reuse. Wash clothing separately before reuse. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Eye contact Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Rinse with water. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately. Call a physician or poison control center immediately. Get medical attention if irritation develops and persists. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. If there will be a delay in getting medical attention, rinse the eyes an additional 15 minutes.

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. If swallowed, seek medical advice immediately and show this container or label. Call a physician or poison control center immediately. Rinse mouth. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediately give large quantities of water to drink. Induce vomiting immediately by giving two glasses of water and sticking a finger down throat if approved by physician.

Most important symptoms/effects, acute and delayed This is a cholinesterase inhibiting organophosphorous pesticide. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. Product may cause slight but temporary irritation to the eyes and may cause irritation of the skin.

Indication of immediate medical attention and special treatment needed	This product is an Organophosphate (OP) Insecticide. Do not handle the patient without the following protective equipment in place: chemical resistant gloves and apron (preferably nitrile). Remove contaminated clothing and do not reuse without thorough cleaning with detergent and hot water. Dispose of heavily contaminated clothing, including shoes, as a hazardous waste. Do not wait for laboratory confirmation to treat patients with strong clinical evidence of poisoning. In the USA and other countries, contact your local or national poison control center for more information. Establish airway and oxygenation. IV Atropine sulfate is the antidote of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minutes intervals in doses of 1 to 2 milligrams until complete atropinization has occurred. Pralidoxime chloride (2-PAM chloride) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected, preferably as an infusion, in 250 cc of saline over a 15 to 20 minute period. If this is not practical, 2-PAM may be administered slowly by intravenous injection as a 5% solution in water over not less than 2 minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscle weakness has not been relieved. For infants and children, the dose of 2-PAM is 0.25 grams. Avoid morphine, aminophylline, phenothiazine, reserpine, furosemide and ethacrynic acid. Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may, without warning, cause prolonged susceptibility to very small doses of any cholinesterase inhibitor. Allow no further exposure until time for cholinesterase regeneration has been attained as determined by a blood test. Bathe and shampoo contaminated skin and hair. If ingested, empty stomach; activated charcoal is useful to further limit absorption. If victim is alert, Syrup of Ipecac (2 tablespoons in adults, 1 tablespoon in small children) is indicated.
General information	Take off contaminated clothing and shoes immediately. Take off immediately all contaminated clothing. In case of shortness of breath, give oxygen. Immediate medical attention is required. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep victim under observation. Keep victim warm. Discard any shoes or clothing items that cannot be decontaminated. This product contains a severe cholinesterase inhibitor. A physician should be contacted in all cases of exposure. Wear protective equipment when treating someone exposed to severe cholinesterase inhibitors to prevent exposure of the rescuer.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed. This product may emit hazardous fumes of hydrogen chloride, carbon oxides and unidentified organic compounds when it is heated excessively or burned.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus. Wear suitable protective equipment. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Clean all clothing before reuse. Severely contaminated clothing cannot be adequately decontaminated, and must be disposed as a hazardous waste. Shower with soap and water after contact with this product.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Wear appropriate protective equipment and clothing during clean-up. Avoid the generation of dusts during clean-up. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Shovel the material into waste container. If contaminated, sweep up or vacuum up spillage and collect in suitable container for disposal. Decontaminate the area and equipment with dilute alkali or ammonia (less than 5%) and detergent.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Keep out of the reach of children. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Additional components	Type	Value	Form
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)	TWA	0.05 mg/m3

Additional components	Type	Value	Form
Nuisance Dust	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Total particulate.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable particles.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)	TWA	0.05 mg/m3	Vapor and aerosol, inhalable.

Additional components	Type	Value	Form
Nuisance Dust	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)	TWA	0.05 mg/m3	Inhalable fraction and vapor.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Additional components	Type	Value	Form
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)	TWA	0.05 mg/m3	Inhalable fraction and vapor.

Additional components	Type	Value	Form
Nuisance Dust	TWA	3 mg/m3	Respirable particles.
		10 mg/m3	Inhalable
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)	STEL	0.2 mg/m3
	TWA	0.05 mg/m3

Additional components	Type	Value	Form
Nuisance Dust	TWA	10 mg/m3	Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Additional components	Type	Value	Form
Nuisance Dust	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Additional components	Type	Value	Form
Nuisance Dust	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Canada - Alberta OELs: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) Can be absorbed through the skin. (CAS 298-02-2)

US ACGIH Threshold Limit Values: Skin designation

Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) Can be absorbed through the skin. (CAS 298-02-2)

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Avoid contact with the skin. Wear appropriate chemical resistant clothing (see label).

Respiratory protection For exposures that may exceed the TLV, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) is required. A full-face respirator or a SCBA may be required if misting or splashing are possible.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Do not get this material on clothing. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance Gray to brown granules

Physical state Solid.

Form Granular.

Color Gray to brown

Odor Mild mercaptan-like odor

Odor threshold Not available.

pH 4 - 7 (slurry)

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 6.40E-04 torr @ 25°C

Vapor density Heavier than air

Relative density Not available.

Solubility(ies)

Solubility (water) 4.5 mg/l (a.i.).

Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	50 - 56 lb/ft³

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials. Avoid high temperatures.
Incompatible materials	Alkaline metals. Isocyanates. Alkaline compounds. Strong oxidizing agents. Strong acids.
Hazardous decomposition products	Possible thermal decomposition products included hydrogen sulfide, carbon dioxide, carbon monoxide, mercaptans, thiophosphates, dialkylsulfides, phosphorus oxides, and sulfur oxides. Decomposition begins at 120°C.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fatal if inhaled. Very toxic by inhalation. Dust may irritate respiratory system.
Skin contact	Fatal in contact with skin. Very toxic in contact with skin. Dust or powder may irritate the skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Eye contact	Causes eye irritation. Dust may irritate the eyes.
Ingestion	Fatal if swallowed. Very toxic if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	This is a cholinesterase inhibiting organophosphorous pesticide. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur.

Information on toxicological effects

Acute toxicity Fatal if inhaled. Fatal in contact with skin. Fatal if swallowed.

Product	Species	Test Results
THIMET 20-G		
Acute		
Dermal		
Dust		
LD50	Rabbit	113 mg/kg (male)
		86 mg/kg (female)
Inhalation		
Dust		
LC50	Rat	0.06 mg/l, 4 h (male, nose only, a.i. only)
		0.011 mg/l, 4 h (female, nose only, a.i. only)
Oral		
Dust		
LC50	Rat	5.1 mg/kg (female)
LD50	Rat	13.5 mg/kg (male)

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Non irritating to slightly irritating to skin.
Serious eye damage/eye irritation	Causes eye irritation. Direct contact with eyes may cause temporary irritation. None known.

Respiratory or skin sensitization

Respiratory sensitization Due to partial or complete lack of data the classification is not possible. Not a respiratory sensitizer.

Skin sensitization Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. None known. This product is not expected to cause skin sensitization.

Germ cell mutagenicity Not available.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	A2 Suspected human carcinogen.
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)	A4 Not classifiable as a human carcinogen.

Canada - Alberta OELs: Carcinogen category

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	Suspected human carcinogen.

Canada - Manitoba OELs: carcinogenicity

PHORATE, INHALABLE FRACTION AND VAPOR (CAS 298-02-2)	Not classifiable as a human carcinogen.
SILICA, CRYSTALLINE-.ALPHA.-QUARTZ, RESPIRABLE FRACTION (CAS 14808-60-7)	Suspected human carcinogen.

Canada - Quebec OELs: Carcinogen category

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	Suspected carcinogenic effect in humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	1 Carcinogenic to humans.

Reproductive toxicity Not available.

Specific target organ toxicity - single exposure Due to partial or complete lack of data the classification is not possible. Not classified.

Specific target organ toxicity - repeated exposure Not classified. Due to partial or complete lack of data the classification is not possible.

Aspiration hazard Due to partial or complete lack of data the classification is not possible. Not an aspiration hazard.

Chronic effects Not expected to be hazardous by WHMIS criteria. Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.

Further information Symptoms may be delayed.

12. Ecological information

Ecotoxicity Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Phorate (O,O-diethyl-5-(ethylthio)methyl dithiophosphate) (CAS 298-02-2)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	0.012 - 0.031 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	0.002 - 0.0026 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions	Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. After recovery of solvent dispose of residue as hazardous waste. Dispose of contents/container in accordance with all applicable local/regional/national/international regulations. Dispose in accordance with all applicable regulations. Dispose of contents/container (in accordance with related regulations). When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.
Contaminated packaging	Empty Lock'N Load® and SmartBox® containers should be returned to AMVAC Chemical Corporation per instructions provided. See the label on the container for more complete information. For empty bags, completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Check with Federal, State, and local authorities for the current regulations applicable to your area. Empty Lock'N Load® and SmartBox® containers should be returned to AMVAC Chemical Corporation per instructions provided. See the label on the container for more complete information.

14. Transport information

TDG

UN number	UN2783
UN proper shipping name	Organophosphorus pesticides, solid, toxic (Phorate), MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Packing group	II
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	UN2783
UN proper shipping name	Organophosphorus pesticides, solid, toxic (Phorate)
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
Packing group	II
Environmental hazards	Yes (when shipped over water)
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN2783
UN proper shipping name	Organophosphorus pesticides, solid, toxic (Phorate), MARINE POLLUTANT
Transport hazard class(es)	
Class	6.1(PGI, II)
Subsidiary risk	-
Label(s)	6.1
Packing group	II
Environmental hazards	
Marine pollutant	Yes

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

IATA; IMDG; TDG

Marine pollutant

General information DOT Regulated Severe Marine Pollutant. IMDG Regulated Severe Marine Pollutant.

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. CANADIAN REGULATIONS: This product is registered under the Pest Control Product Act of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product has been classified according to the hazard criteria of the CPR and the SDS contains all the information required by the CPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Issue date 03-02-2016

Version # 01

References

ACGIH
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
EPA: AQUIRE database
GOST 30333-2007 - Chemical production safety passport. General requirements
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
Korea. Accidental Release Prevention Substances (Presidential Decree of Toxic Chemical Control Law, Executive Order No. 19203)
Korea. Dangerous Substances Threshold Quantity (Presidential Decree of Dangerous Substances Safety Management Act No. 18406, Schedule 1)
Korea. Harmful Substances Prohibited from Manufacturing (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 29)
Korea. Harmful Substances Requiring Permission for Manufacture or Use (Presidential Decree on the Industrial Safety and Health Act (No. 13053), Article 30)
Korea. Non-Toxic Chemicals List (National Institute of Environment Research (NIER) Public Notice No. 1997-10, as amended)
Korea. Observational Chemicals (Ministerial Decree of TCCL Article 6)
Korea. OELs. Regulation for Permitted Concentration of Hazardous Substances (Ministry of Labor (MOL) Public Notice No. 1986-45, as amended)
Korea. Prohibited Chemical Substances (TCCL Article 11)
Korea. Regulated volatile organic compounds (VOCs) (MOE Notice No. 2001-36, March 8, 2001, as amended)
Korea. Restricted Chemical Substances (TCCL Article 11)
Korea. Toxic Chemical Control Law (TCCL), Existing Chemicals Inventory (KECI)
Korea. Toxic Chemical Control Law (TCCL), pre-1997 List
Korea. Toxic Chemicals (TCCL Article 10)
Korea. Toxic Release Inventory (TRI) Chemicals (TCCL Article 14)
Taiwan. Dangerous Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Taiwan. Industrial Precursor Chemicals (Categories and Regulations Governing Inspection and Declaration of Industrial Precursor Chemicals, MOEA Decree No. 87, as amended)
Taiwan. OELs. (Standards on Workplace Atmosphere of Dangerous and Hazardous Materials)
Taiwan. Toxic Chemical Substances (TCS) (List of Toxic Chemical Substances announced by the Environmental Protection Administration)
Taiwan. Toxic Materials (Rules on Hazard Communication of Dangerous Materials and Toxic Materials)
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2012
JIS Z 7252:2014 Classification of chemicals based on “Globally Harmonized System of Classification and Labelling of Chemicals (GHS)”
JIS Z 7253:2012 Hazard communication of chemicals based on GHS – Labelling and Safety Data Sheet (SDS)
ACGIH®: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
EPA: Environmental Protection Agency
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Agency
SARA: Superfund Amendments and Reauthorization Act
TSCA: Toxic Substances Control Act
DOT: Department of Transportation
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association

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Revision information

Product and Company Identification: Synonyms
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Property Data
Transport Information: Proper Shipping Name/Packing Group
GHS: Classification