SAFETY DATA SHEET



1. Identification

Product identifier Methamidophos

Other means of identification

Item N-12393

Recommended use For Laboratory Use Only

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc.
Address 660 Tower Lane

West Chester, PA 19380

United States

Telephone Toll Free 800-452-9994

Direct 610-692-3026

Website www.chemservice.com
E-mail info@chemservice.com

Emergency phone number Chemtrec US 800-424-9300

Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Acute toxicity, oral Category 2

Acute toxicity, dermal Category 2
Acute toxicity, inhalation Category 2
Serious eye damage/eye irritation Category 2A

Environmental hazards Hazardous to the aquatic environment, acute Category 1

hazard

Hazardous to the aquatic environment,

long-term hazard

Not classified.

Label elements

OSHA defined hazards



Signal word Danger

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

toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement

Material name: Methamidophos

Prevention Wear eye/face protection. Do not breathe dust/fume. 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

Category 3

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). Rinse mouth. 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.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Substances

| Chemical name | Common name and synonyms | CAS number | % |
|---------------|--------------------------|------------|-----|
| Methamidophos | | 10265-92-6 | 100 |

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

Take off immediately all contaminated clothing. IF ON SKIN: Gently wash with plenty of soap and Skin contact

water. Call a physician or poison control center immediately.

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove Eye contact

contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control

center immediately.

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without Ingestion

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

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.

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special treatment needed

General information

Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Take off immediately all contaminated clothing. In the case of accident or if you feel unwell, seek medical advice immediately (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. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing

media

Specific hazards arising from the chemical

Special protective equipment

and precautions for firefighters

Fire fighting

equipment/instructions

Specific methods

General fire hazards

Alcohol resistant foam. Water spray. Water fog. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Use water spray to cool unopened containers.

Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Material name: Methamidophos SDS US

Methods and materials for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Collect spillage.

Large Spills: Wet down with water and dike for later disposal. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

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. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Do not breathe dust. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage. including any incompatibilities Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Store under nitrogen. Refrigeration recommended.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

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

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Wear eye/face protection. Wear safety glasses with side shields (or goggles). Eye/face protection

Skin protection

Hand protection Wear protective gloves.

Other Wear appropriate chemical resistant clothing.

Wear positive pressure self-contained breathing apparatus (SCBA). Respiratory protection

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

General hygiene considerations

When using, do not eat, drink or smoke. Do not get this material on clothing. 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

Physical state Solid. **Form** Solid. Off-white. Color Not available. Odor **Odor threshold** Not available. Ha Not available. 112.82 °F (44.9 °C) Melting point/freezing point

Initial boiling point and boiling

range

Flash point Not available. Not available. **Evaporation rate**

Material name: Methamidophos SDS US

Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

(%)

Flammability limit - upper

Flammability limit - lower

(%)

Not available.

Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0.000005 kPa at 25 °C

Vapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Soluble

Partition coefficient -0.8
(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

Density 1.31 g/ml

Molecular formulaC2-H8-N-O2-P-SMolecular weight141.1 g/molSpecific gravity1.27

10. Stability and reactivity

ReactivityThe 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 Hazardous polymerization does not occur.

reactions

Conditions to avoidContact with incompatible materials.

Incompatible materials Peroxides. Phenols.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Fatal if inhaled.

Skin contactFatal in contact with skin.Eye contactCauses serious eye irritation.

Ingestion Fatal if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

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

Product Species Test Results

Methamidophos (CAS 10265-92-6)

<u>Acute</u> Dermal

LD50 Rabbit 118 mg/kg

Rat 85 mg/kg

Material name: Methamidophos SDS US

| Product | Species | Test Results | Test Results | |
|---------|---------|--------------|--------------|--|
| Oral | | | | |
| LD50 | Hen | 25 mg/kg | | |
| | Mouse | 14 mg/kg | | |
| | Rabbit | 10 mg/kg | | |
| | Rat | 14 mg/kg | | |
| Other | | | | |
| LD50 | Rat | 50 mg/kg | | |

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

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

Causes serious eye irritation.

irritation

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not classified.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard Not available.

12. Ecological information

EcotoxicityVery toxic to aquatic life. Harmful to aquatic life with long lasting effects. Accumulation in aquatic

organisms is expected.

Product Species Test Results

Methamidophos (CAS 10265-92-6)

Aquatic

Fish LC50 Nile tilapia (Tilapia nilotica) 24.3 - 35 mg/l, 96 hours

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

Bioaccumulative potential Not available.

Partition coefficient n-octanol / water (log Kow)

-0.8

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

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.

Material name: Methamidophos SDS US

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

Waste from residues / unused

products

Dispose of in accordance with local 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).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

UN number **UN3278**

UN proper shipping name

Organophosphorus compound, toxic, liquid, n.o.s., MARINE POLLUTANT

Transport hazard class(es)

Class 6.1(PGI, II)

Subsidiary risk 6.1 Label(s) Packing group Ш

Environmental hazards

Marine pollutant Yes

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

IB2, T11, TP2, TP27 Special provisions

Packaging exceptions 153 202 Packaging non bulk Packaging bulk 243

IATA

UN number **UN3278**

UN proper shipping name Transport hazard class(es) Organophosphorus compound, liquid, toxic, n.o.s.

Class 6.1(PGI, II)

Subsidiary risk Packing group Ш **Environmental hazards** No. **ERG Code** 61

Other information

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

Passenger and cargo

Allowed.

6.1(PGI, II)

aircraft

Allowed. Cargo aircraft only

IMDG

UN number UN3278

UN proper shipping name Transport hazard class(es) ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S., MARINE POLLUTANT

Class Subsidiary risk

П Packing group

Environmental hazards

Marine pollutant Yes **EmS** F-A, S-A

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and

the IBC Code

Material name: Methamidophos SDS US



IATA; IMDG



Marine pollutant



General information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Methamidophos (CAS 10265-92-6)

100 LBS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

| Chemical name | CAS number | Reportable quantity | Threshold planning quantity | Threshold planning quantity, lower value | Threshold planning quantity, upper value | |
|---------------|------------|---------------------|-----------------------------|--|--|--|
| Methamidophos | 10265-92-6 | 100 | | 100 lbs | 10000 lbs | |

SARA 311/312 Hazardous Yes

chemical

Material name: Methamidophos SDS US

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Contaminate candidate list

(SDWA)

US state regulations

US - New Jersey RTK - Substances: Listed substance

Methamidophos (CAS 10265-92-6)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Methamidophos (CAS 10265-92-6)

US. New Jersey Worker and Community Right-to-Know Act

Methamidophos (CAS 10265-92-6)

US. Pennsylvania RTK - Hazardous Substances

Methamidophos (CAS 10265-92-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Methamidophos (CAS 10265-92-6)

US. Rhode Island RTK

Methamidophos (CAS 10265-92-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region

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|-----------------------------|--|-----------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | 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, including date of preparation or last revision

Inventory name

 Issue date
 07-17-2014

 Revision date
 11-19-2015

Version # 02

NFPA ratings Health: 4

Flammability: 0 Instability: 0

Material name: Methamidophos SDS US

On inventory (yes/no)*

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.

This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES.

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Revision Information

Handling and storage: Conditions for safe storage, including any incompatibilities