

SAFETY DATA SHEET

ANNIHILATE™ SP INSECTICIDE

Version	Revision Date:	MSDS Number:	Country: US
1.5	10/27/2015	000000035651	Language: EN

SECTION 1. IDENTIFICATION

Product name : ANNIHILATE™ SP INSECTICIDE

Product code : 000000035651

Manufacturer or supplier's details

Company: MacDermid Agricultural Solutions, Inc
245 Freight St
Waterbury, CT
United States of America
06702
Telephone : +1 800 423 8569

Prepared by sds.request@arysta.com

Further information for the safety data sheet :
sds.request@arysta.com

1.4 Emergency telephone number

Emergency telephone number: Agriphar Crop Solutions: +1 800 423 8569(24 hours) 800-424-9300
For additional emergency telephone numbers see section 16 of the
Safety Data Sheet.

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : Agriculture, For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 2

Acute aquatic toxicity : Category 1



Chronic aquatic toxicity : Category 1

GHS Label element

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Hazard pictograms :  

Signal word : Danger

Hazard statements : H300 Fatal if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
Response:
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.
P391 Collect spillage.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Methomyl - 90%

Hazardous components

Chemical Name	CAS-No.	Concentration (% w/w)
methomyl	16752-77-5	>= 90 - <= 100

SECTION 4. FIRST AID MEASURES

General advice : This product contains an anticholinesterase compound. Do not use if under medical advice not to work with such compounds.
Get medical attention.

If inhaled : Move to fresh air.
If breathing has stopped, apply artificial respiration.
Call a physician or poison control centre immediately.

In case of skin contact : Remove contaminated clothing and shoes.
Wash off immediately with plenty of water for at least 15

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- minutes.
Call a POISON CENTER or doctor/ physician.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
Call a POISON CENTER or doctor/ physician.
- If swallowed : Call a physician or poison control centre immediately.
Have person sip a glass of water if able to swallow.
If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Symptoms may be delayed.
Fatal if swallowed.
- Notes to physician : Probable mucosal damage may contraindicate the use of gastric lavage.

ANTIDOTE: Atropine sulphate.

This product contains an organophosphate that inhibits cholinesterase. Treat symptomatically. If exposed, plasma and RBC cholinesterase tests may indicate significance of exposure. Atropine (by injection only) is the preferable antidote. Oximes (2-PAM/Contrathion) may be therapeutic if used early; however, they should be used only in conjunction with atropine. In case of severe acute poisoning, use an antidote immediately after establishing an open airway and respiration.

Methomyl poisoning produces effects associated with anticholinesterase activity, which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, and muscle tremors.

Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until patient recovers.

Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to this product. However, for exposure to combinations of this product and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropinesulfate treatment as described. Do not use morphine.

Seek medical attention at once in all cases of suspected poisoning.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Dry chemical

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	Water spray
Unsuitable extinguishing media	: Water spray jet
Specific hazards during fire-fighting	: Burning produces noxious and toxic fumes. Keep containers and surroundings cool with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	: Evacuate personnel to safe areas. Stay upwind/ keep distance from source. Avoid breathing vapours, mist or gas. Prevent fire extinguishing water from contaminating surface water or the ground water system. Use water spray to cool unopened containers. Fight fire with normal precautions from a reasonable distance.
Special protective equipment for firefighters	: Self-contained breathing apparatus (EN 133) Wear suitable protective clothing, gloves and eye/face protection.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Wear suitable protective clothing, gloves and eye/face protection. Avoid contact with skin and eyes.
Environmental precautions	: Prevent leaks and prevent soil / water pollution caused by leaks. Avoid release to the environment.
Methods and materials for containment and cleaning up	: Wear suitable protective equipment. Avoid all contact with material. Sweep up and shovel into suitable containers for disposal. Do not flush into surface water or sanitary sewer system.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	: Wear suitable protective equipment. Keep container tightly closed. Remove all sources of ignition. Do not breathe vapours/dust. Do not get in eyes or mouth or on skin. Wash thoroughly after handling. Use only with adequate ventilation/personal protection.
Conditions for safe storage	: Keep in a dry, cool place. Keep away from heat and sources of ignition. Do not freeze. Keep only in the original container. Keep container tightly closed.

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Protect from contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methomyl	16752-77-5	TWA	2.5 mg/m3	OSHA P0
		TWA	2.5 mg/m3	NIOSH REL
		TWA (Inhalable fraction and vapor)	0.2 mg/m3	ACGIH

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Use NIOSH approved respiratory protection.

Hand protection

Remarks : Impervious gloves

Eye protection : Goggles
Face-shield
Safety glasses

Skin and body protection : Footwear protecting against chemicals
Long sleeved clothing

Hygiene measures : NOTE TO END-USERS: The employee protection recommendations on this SDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Colour : white

Odour : characteristic

Odour Threshold : No data available

pH : ca. 7.0, 1% Solution

Melting point/range : No data available

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Boiling point/boiling range	: Not applicable
Flash point	: Not applicable
Evaporation rate	: Not applicable
Flammability (solid, gas)	: The product is not flammable.
Upper explosion limit	: Not explosive
Lower explosion limit	: Not explosive
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: No data available
Bulk density	: 585 kg/m ³ (20 °C)
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: 0.12 - 0.15 (25 °C)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, kinematic	: Not applicable
Self-Accelerating decomposition temperature (SADT)	: Method: No information available.

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Incompatible materials	: Oxidizing agents Reactive metals
Hazardous decomposition products	: Burning produces noxious and toxic fumes.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

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Product:

Acute oral toxicity : Acute toxicity estimate: 35.56 mg/kg
Method: Calculation method

Components:

methomyl:

Acute oral toxicity : LD50 (Rat): 32 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.258 mg/l
Exposure time: 4 h
Assessment: The component/mixture is low toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Skin corrosion/irritation

Components:

methomyl:

Species: Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Components:

methomyl:

Species: Rabbit

Result: slight irritation

Respiratory or skin sensitisation

Components:

methomyl:

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Product:

Germ cell mutagenicity - Assessment : Not classified due to inconclusive data.

Carcinogenicity

Product:

Carcinogenicity - Assessment : Not classified due to inconclusive data.

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed

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human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment : Not classified due to inconclusive data.

STOT - single exposure

Product:

Remarks: No data available

STOT - repeated exposure

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

methomyl:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 0.72 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 0.0076 - 0.0317 mg/l
Exposure time: 48 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-

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tection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG

UN number	: UN 2757
Proper shipping name	: CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl)
Class	: 6.1
Packing group	: II
Labels	: 6.1

IATA-DGR

UN/ID No.	: UN 2757
Proper shipping name	: CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl)
Class	: 6.1
Packing group	: II
Labels	: Toxic
Packing instruction (cargo aircraft)	: 676
Packing instruction (passenger aircraft)	: 669

IMDG-Code

UN number	: UN 2757
Proper shipping name	: CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl)
Class	: 6.1
Packing group	: II
Labels	: 6.1
EmS Code	: F-A, S-A
Marine pollutant	: yes

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

Not applicable for product as supplied.

National Regulations

49 CFR

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UN/ID/NA number	: UN 2757
Proper shipping name	: CARBAMATE PESTICIDES, SOLID, TOXIC (Methomyl)
Class	: 6.1
Packing group	: II
Labels	: TOXIC
ERG Code	: 151
Marine pollutant	: yes(Methomyl)

EPCRA - Emergency Planning and Community Right-to-Know Act

Components	CAS-No.	Component RQ (lbs)	Component RQ (lbs)
methomyl	16752-77-5	100	111

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
methomyl	16752-77-5	100	111

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

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California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

FIFRA Hazard Information:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

The hazard information required on the pesticide label is reproduced below.

DANGER

Fatal if swallowed. Corrosive. Causes irreversible eye damage. May be fatal if inhaled. Harmful if absorbed through skin. Do not get into eyes or on clothing. Do not breathe dust. Avoid contact with skin.

This pesticide is toxic to fish, aquatic invertebrates, and mammals. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean highwater mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

This chemical is known to leach through soil into ground-water under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

Keep container closed. Use with adequate ventilation.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

(Q)SAR - (Quantitative) Structure Activity Relationship; ASTM - American Society for the Testing of Materials; bw - Body weight; DIN - Standard of the German Institute for Standardisation; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; IARC - International Agency for Research on Cancer; IATA -

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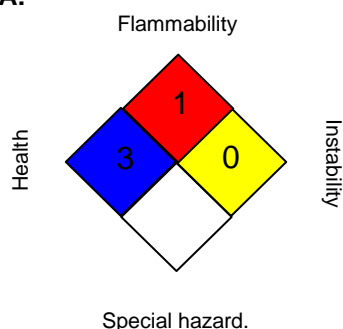
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International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISO - International Organisation for Standardization; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative; DSL - Domestic Substances List (Canada); KECI - Korea Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); AICS - Australian Inventory of Chemical Substances; IECSC - Inventory of Existing Chemical Substances in China; ENCS - Existing and New Chemical Substances (Japan); ISHL - Industrial Safety and Health Law (Japan); PICCS - Philippines Inventory of Chemicals and Chemical Substances; NZIoC - New Zealand Inventory of Chemicals; TCSI - Taiwan Chemical Substance Inventory; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; DOT - Department of Transportation; EHS - Extremely Hazardous Substance; HMIS - Hazardous Materials Identification System; MSHA - Mine Safety and Health Administration; NFPA - National Fire Protection Association; RCRA - Resource Conservation and Recovery Act; RQ - Reportable Quantity; SARA - Superfund Amendments and Reauthorization Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; GLP - Good Laboratory Practice; ERG - Emergency Response Guide; NTP - National Toxicology Program; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

Further information

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 10/27/2015

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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US / EN

Carechem24 International Worldwide Coverage

Emergency Phone Number

<u>Europe:</u>	All European Countries	+44 (0) 1235 239 670 (NCEC)
<u>Asia Pacific:</u>	East / South East Asia – Regional Number	+65 3158 1074
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China	+86 532 8388 9090
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	Malaysia	+60 3 6207 4347
	Thailand	001800 1 2066 6751
	Korea	+65 3158 1285 +82 (0)234 798 401
	Vietnam	+65 3158 1255
	India	+65 3158 1198 0800 100 7479
	Pakistan	+65 3158 1329
	Philippines	+65 31581203
	Sri Lanka	+65 3158 1195
	Emergency Phone Number	+65 3158 1200
<u>Middle East / Africa:</u>	Arabic speaking countries	+44 (0) 1235 239 671
	South Africa	+27 21 300 2732
	All other countries	+44 (0) 1235 239 670
<u>America</u>	United States of America and Canada	+1866 928 0789 +1 215 207 0061
<u>Latin America:</u>	Brazil	+55 11 3197 5891
	Mexico	+52 555 004 8763
	Chile	+56 225 829 336
	All other countries	+44 (0) 1235 239 670