

# Attendant 480 FS

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 10/07/2015

Revision date: 10/10/2016

Supersedes: 07/15/2016

Version: 2.1

## SECTION 1: Identification

### 1.1. Identification

Product form : Mixtures  
Product name : Attendant 480 FS  
Product code : 000000004086  
Other means of identification : EPA Reg. No. 400-576

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Seed treatment  
Restrictions on use : Agriculture, For professional users only

### 1.3. Details of the supplier of the safety data sheet

MacDermid Agricultural Solutions, Inc.  
245 Freight Street  
Waterbury, CT 06702 - USA  
T 1-866-761-9397  
[sds@arysta.com](mailto:sds@arysta.com)

### 1.4. Emergency telephone number

Emergency number : FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL PROPHARMA: 1-866-303-6952  
or +1-651-603-3432  
FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) call  
CHEMTREC: 1-800-424-9300 or +1-703-527-3887

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### GHS-US classification

Acute toxicity (oral), Category 4 H302  
Acute toxicity (inhalation:dust,mist) Category 4 H332  
Serious eye damage/eye irritation, Category 2B H320  
Specific target organ toxicity — Repeated exposure, Category 2 H373  
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H statements : see section 16

### 2.2. Label elements

#### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

GHS09

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H302+H332 - Harmful if swallowed or if inhaled  
H320 - Causes eye irritation  
H373 - May cause damage to organs through prolonged or repeated exposure  
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P260 - Do not breathe mist, spray, vapours  
P261 - Avoid breathing mist, spray, vapours  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P271 - Use only outdoors or in a well-ventilated area  
P273 - Avoid release to the environment  
P301+P312 - If swallowed: Call a doctor if you feel unwell  
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P312 - Call a doctor if you feel unwell  
P314 - Get medical advice/attention if you feel unwell  
P330 - Rinse mouth  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P391 - Collect spillage  
P501 - Dispose of contents/container to hazardous or special waste collection point, in

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

0.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

0.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

0.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Imidacloprid (Main constituent)	(CAS No) 138261-41-3	5 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2B, H320 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Ethylene glycol	(CAS No) 107-21-1	1 – 3	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Remove contaminated clothing and shoes. Gently wash with plenty of soap and water.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting unless directed to do so by medical personnel.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Causes damage to organs through prolonged or repeated exposure.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
- Symptoms/injuries after eye contact : Causes eye irritation.
- Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Large fires: alcohol resistant foam. Small fires: Carbon dioxide. Dry chemical. Water spray.
- Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Burning produces irritating, toxic and noxious fumes. Carbon oxides (CO, CO<sub>2</sub>). Hydrogen chloride. Nitrogen oxides.
- Explosion hazard : Product is not explosive.
- Reactivity : No dangerous reactions known.

### 5.3. Advice for firefighters

- Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses.
- Protection during firefighting : Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid all eye and skin contact and do not breathe vapour and mist. Ensure adequate ventilation.

##### 6.1.1. For non-emergency personnel

Protective equipment : Use personal protective equipment as required. Refer to section 8.2.

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required. Refer to section 8.2.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

#### 6.2. Environmental precautions

Prevent dispersion. Do not discharge into drains or the environment. Prevent entry to sewers and public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container.

#### 6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Avoid all eye and skin contact and do not breathe vapour and mist.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Work in a well-ventilated area.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Do not store near food, foodstuffs, drugs, or potable water supplies.

Incompatible products : Oxidizing agent. Strong bases. Strong acids.

Storage area : Store in dry, cool, well-ventilated area.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Imidacloprid (138261-41-3)		
Not applicable		
Ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>
ACGIH	ACGIH Ceiling (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
ACGIH	ACGIH Ceiling (ppm)	39.4 ppm
ACGIH	Remark (ACGIH)	URT & eye irr
NIOSH	NIOSH REL (ceiling) (ppm)	50 ppm

#### 8.2. Exposure controls

Appropriate engineering controls : Avoid creating mist or spray. Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear suitable gloves resistant to chemical penetration. Butyl rubber gloves. neoprene gloves. PVC. Viton. barrier laminate.

Eye protection : Safety glasses with side shields.

Skin and body protection : Impervious clothing.

Respiratory protection : NIOSH. In case of insufficient ventilation, wear suitable respiratory equipment. Approved respirator.

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: suspension. (aqueous).
Colour	: Off-white
Odour	: Harmful
Odour threshold	: No data available
pH	: 8.5
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.193 g/cm <sup>3</sup>
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 380 mPa.s
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No dangerous reactions known.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

None known.

#### 10.5. Incompatible materials

Strong acids. Oxidizing agent. Strong bases.

#### 10.6. Hazardous decomposition products

Burning produces irritating, toxic and noxious fumes. hydrogen chloride. Carbon oxides (CO, CO<sub>2</sub>). Nitrogen oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Likely routes of exposure	: Skin and eye contact; Inhalation
Acute toxicity	: Oral: Harmful if swallowed. Inhalation:dust,mist: Harmful if inhaled.

Attendant 480 FS	
LD50 oral rat	643 (500 - 825) mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	2.5 (1.02 - 2.02) mg/l/4h

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Attendant 480 FS	
ATE US (oral)	643.000 mg/kg bodyweight
ATE US (vapours)	2.500 mg/l/4h
ATE US (dust,mist)	2.500 mg/l/4h

Imidacloprid (138261-41-3)	
LD50 oral rat	424 mg/kg
LD50 dermal rat	> 5000 mg/kg
ATE US (oral)	424.000 mg/kg bodyweight
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

Ethylene glycol (107-21-1)	
LD50 dermal rat	> 3500 mg/kg mouse
LC50 inhalation rat (mg/l)	> 2.5 mg/l/4h
ATE US (oral)	500.000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified (May cause slight irritation)
Serious eye damage/irritation	: Causes eye irritation.
Respiratory or skin sensitisation	: Not classified (No sensitizing reaction was observed for guinea pigs)
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.

Ethylene glycol (107-21-1)	
LOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day kidney

Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard. Harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - water	: Toxic to aquatic life with long lasting effects.
-----------------	--

Imidacloprid (138261-41-3)	
LC50 fish 1	211 mg/l 96 h
EC50 Daphnia 1	85 mg/l 48 h
NOEC (acute)	50 mg/l 96 h
NOEC chronic crustacea	1.8 mg/l 21 d

Ethylene glycol (107-21-1)	
LC50 fish 1	72860 mg/l Pimephales promelas
EC50 Daphnia 1	> 100 mg/l
NOEC chronic fish	15380 mg/l Pimephales promelas
NOEC chronic crustacea	8590 mg/l Ceriodaphnia sp.

### 12.2. Persistence and degradability

Attendant 480 FS	
Persistence and degradability	May cause long-term adverse effects in the environment.

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

Attendant 480 FS	
Bioaccumulative potential	Not established.

Imidacloprid (138261-41-3)	
Log Pow	-1.3

Ethylene glycol (107-21-1)	
Log Pow	- 1.36
Bioaccumulative potential	Not expected to bioaccumulate.

### 12.4. Mobility in soil

Attendant 480 FS	
Ecology - soil	No additional information available.

### 12.5. Other adverse effects

Other information : No additional information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.  
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Non-bulk (<= 119 gallons / 450 liters) : Not regulated

### Bulk (> 119 gallons / 450 liters):

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s. (Imidacloprid), 9, III

UN-No.(DOT) : UN3082

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s. (Imidacloprid)

Packing group (DOT) : III - Minor Danger

Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : Yes

Marine pollutant : Yes



### Transport by sea

#### IMDG

Transport hazard class(es) (IMDG) : 9



Marine pollutant : Yes

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

UN-No. (IMDG)	: 3082
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Imidacloprid), 9, III, MARINE POLLUTANT
Class (IMDG)	: 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG)	: III - substances presenting low danger
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F

### Air transport

#### IATA

Transport hazard class(es) (IATA) : 9



Marine pollutant : Yes

UN-No. (IATA) : 3082

Transport document description (IATA) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Imidacloprid), 9, III

Class (IATA) : 9 - Miscellaneous Dangerous Goods

Packing group (IATA) : III - Minor Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Ethylene glycol	CAS No 107-21-1	1 - 3%
-----------------	-----------------	--------

#### Imidacloprid (138261-41-3)

EPA TSCA Regulatory Flag Exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide

#### Ethylene glycol (107-21-1)

EPA TSCA Regulatory Flag T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA

CERCLA RQ 5000 lb

SARA Section 313 - Emission Reporting >95%

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 hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.:

# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

EPA Registration Number	400-576
FIFRA Signal Word	CAUTION
FIFRA Hazard Statement	Harmful if swallowed, absorbed through skin or inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse. This product is highly toxic to birds and aquatic invertebrates. This compound is highly toxic to bees exposed directly (contact).
FIFRA Other	For On-Farm Use: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. For Commercial Seed Treatment Facilities: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional office of the EPA.

### 15.2. International regulations

#### CANADA

##### Imidacloprid (138261-41-3)

Not listed on the Canadian DSL (Domestic Substances List) inventory

##### Ethylene glycol (107-21-1)

Listed on the Canadian DSL (Domestic Substances List) inventory

### 15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

#### Ethylene glycol (107-21-1)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	Yes	No	No	

#### Ethylene glycol (107-21-1)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities  
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances  
U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Revision date : 10/10/2016

Data sources : ACGIH (American Conference of Government Industrial Hygienists).  
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.  
Kristen Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.  
Manufacturer Information.  
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.  
OSHA 29CFR 1910.1200 Hazard Communication Standard.  
TSCA Chemical Substance Inventory. Accessed at <http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html>.



# Attendant 480 FS

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Full text of H-statements:

H302	Harmful if swallowed
H320	Causes eye irritation
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

### Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	EC50: Environmental Concentration associated with a response by 50% of the test population.
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	STEL: Short Term Exposure Limits
	TSCA: Toxic Substances Control Act
	TWA: Time Weighted Average

### NFPA health hazard

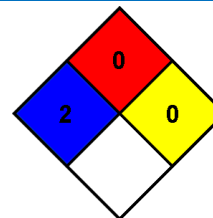
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

### NFPA fire hazard

: 0 - Materials that will not burn.

### NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



### Indication of changes:

General information.

### SDS Prepared by:

The Redstone Group, LLC.  
6077 Frantz Rd  
Suite 206  
Dublin, Ohio, USA 43016  
614.923.7472  
[www.redstonegrp.com](http://www.redstonegrp.com)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*