



## SAFETY DATA SHEET

Arrivo 10 EC

SDS # : FO004310-A  
Revision date: 2019-02-12  
Format: AP  
Version 1

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Arrivo 10 EC  
**Product Code(s)** FO004310-A  
**Recommended Use:** Insecticide.  
**Restrictions on Use:** Use as recommended by the label.

**Manufacturer/Supplier**

FMC Corporation  
2929 Walnut Street,  
Philadelphia,  
Pennsylvania 19104  
USA  
General Information:  
Phone: (215) 299-6000  
E-Mail: msdsinfo@fmc.com

**Importer**

FMC VIETNAM COMPANY LIMITED  
No. 12 lot B, Thong Nhat Road  
Song Than 2 Industrial Zone  
Di An Ward, Di An Town  
Binh Duong Province  
Vietnam  
Phone: (+84) 02835207622  
Fax: (+84) 02835207763

**Emergency telephone**

Medical Emergencies:  
1 800 / 331-3148 (U.S.A. & Canada)  
1 651 / 632-6793 (All Other Countries - Collect)

For leak, fire, spill or accident emergencies, call:  
1 800 / 424-9300 (CHEMTREC - U.S.A.)  
1 703 / 741-5970 (CHEMTREC - International)  
1 703 / 527-3887 (CHEMTREC - Alternate)  
1 202 / 483-7616 (CHEMTREC - Alternate International)

### Section 2: HAZARDS IDENTIFICATION

**GHS Classification**

Aspiration toxicity	Category 1
Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 2
STOT - single exposure	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Flammable liquids	Category 4
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**Label Elements**

**Signal Word****Danger****Hazard Statements**

H304 - May be fatal if swallowed and enters airways  
H316 - Causes mild skin irritation  
H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness  
H351 - Suspected of causing cancer  
H373 - May cause damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects  
H227 - Combustible liquid

**Precautionary Statements - Prevention**

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P264 - Wash hands thoroughly after handling  
P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P271 - Use only outdoors or in a well-ventilated area  
P273 - Avoid release to the environment  
P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P280 - Wear eye protection/ face protection

**Precautionary Statements - Response**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical advice/ attention  
P308 + P313 - If exposed or concerned: Get medical advice/attention  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P312 - Call a POISON CENTER or doctor if you feel unwell  
P391 - Collect spillage  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower  
P370+P378: In case of fire, use foam or carbon dioxide for extinction.  
P332 + P313 - If skin irritation occurs: Get medical advice/ attention

**Precautionary Statements - Storage**

P405 - Store locked up  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
P403 + P235 - Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

P501 - Dispose of contents/container according to label directions

**Other Information**

None known.

Chemical name	CAS-No	Weight %
Cypermethrin	52315-07-8	11.9
Naphtha (petroleum), heavy aromatic	64742-94-5	75-85
Calcium dodecylbenzene sulfonate	26264-06-2	2-8

#### Section 4: FIRST AID MEASURES

<b>Inhalation</b>	Move to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.
<b>Eye Contact</b>	Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists.
<b>Ingestion</b>	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
<b>Most important symptoms and effects, both acute and delayed</b>	Central nervous system effects.
<b>Protection of first-aiders</b>	Use personal protective equipment. See Section 8 for more detail.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	This product contains aromatic hydrocarbons that can produce a severe pneumonitis if aspirated during vomiting. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

#### Section 5: FIRE FIGHTING MEASURES

<b>Explosive properties</b>	Not explosive.
<b>Flammable properties</b>	Flammable liquids.
<b>Suitable Extinguishing Media</b>	Dry chemical, CO <sub>2</sub> , water spray or alcohol-resistant foam.
<b>Unsuitable extinguishing media</b>	Avoid heavy hose streams.
<b>Specific Hazards Arising from the Chemical</b>	Thermal decomposition can lead to release of irritating gases and vapors, nitrogen oxides (NO <sub>x</sub> ), hydrogen cyanide, and hydrogen chloride.
<b>Protective equipment and precautions for firefighters</b>	Isolate fire area. Evaluate upwind. As in any fire, wear self-contained breathing apparatus and full protective gear.

#### Section 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Isolate and post spill area. Remove all sources of ignition. Wear protective gloves/clothing and eye/face protection. For personal protection see section 8.
<b>Other</b>	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
<b>Environmental Precautions</b>	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. Keep out of waterways.
<b>Methods for Containment</b>	Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	Clean and neutralize spill area, tools and equipment by washing with water and soap.

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dispose of waste as indicated in Section 13.

## Section 7: HANDLING AND STORAGE

<b>Handling</b>	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.
<b>Materials to avoid</b>	Strong oxidizing agents, Strong acids, Strong bases.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Limits

<b>Engineering measures</b>	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
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### Personal protective equipment

<b>Respiratory Protection</b>	The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.
<b>Hand Protection</b>	Wear chemical protective gloves made of materials such as nitrile or neoprene.
<b>Eye/Face Protection</b>	For dust, splash, mist or spray exposure, wear chemical protective goggles.
<b>Skin and Body Protection</b>	Minimize skin contamination by following good industrial hygiene practices. Wear suitable protective clothing. Protective shoes or boots.
<b>Hygiene measures</b>	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Amber Liquid
<b>Odor</b>	No information available
<b>Color</b>	Amber
<b>Odor threshold</b>	No information available
<b>pH</b>	5.5 (1% suspension)
<b>Melting point/freezing point</b>	Not applicable
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	63 °C
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
<b>Vapor pressure</b>	Low vapor pressure.
<b>Vapor density</b>	No information available
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Emulsifies
<b>Solubility(ies)</b>	No information available
<b>Partition coefficient</b>	No information available

Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	Not explosive
Relative density	No information available
Bulk density	No information available

## Section 10: STABILITY AND REACTIVITY

Reactivity	None under normal use conditions
Stability	Stable under recommended storage conditions
Hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	Heat, flames and sparks.
Incompatible products	Strong oxidizing agents, Strong acids, Strong bases.
Hazardous Decomposition Products	Thermal decomposition can lead to release of irritating gases and vapors: Carbon oxides (COx), Hydrogen cyanide, Chlorine, Hydrogen chloride.

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Numerical measures of toxicity - Product Information

LD50 Oral	785 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation	2.43 mg/L 4 hr (rat)
Skin corrosion/irritation	Mildly irritating (rabbit).
Serious eye damage/eye irritation	Moderately irritating (rabbit).
Sensitization	Guinea pig: Non-sensitizing.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Mutagenicity	Cypermethrin: Not genotoxic in laboratory studies.
Carcinogenicity	Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.
Reproductive toxicity	Cypermethrin. No toxicity to reproduction in animal studies.
Developmental toxicity	Cypermethrin: Not teratogenic in animal studies.
STOT - single exposure	May cause drowsiness and dizziness.
STOT - repeated exposure	May cause damage to organs through prolonged or repeated exposure. See listed target organs below.
Chronic toxicity	Cypermethrin. Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight.
Target organ effects	Central Nervous System (CNS).
Symptoms	Signs of toxicity in laboratory animals included hypertonicity, ataxia, lethargy, convulsions, gasping, salivation, dyspnea, and alopecia. Large doses of cypermethrin ingested by laboratory animals produced signs of toxicity including loss of motor control, tremors, decreased activity, urinary incontinence, incoordination, increased sensitivity to sound and convulsions.
Aspiration hazard	This product presents an aspiration pneumonia hazard.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

<b>Cypermethrin (52315-07-8)</b>				
Active Ingredient(s)	Duration	Species	Value	Units
	72 h EC50	Algae	> 0.1	mg/L
	21 d NOEC	Crustacea	0.04	µg/L
	21 d NOEC	Fish	0.03	µg/L
	96 h NOEC	Algae	1.3	mg/L
	96 h LC50	Rainbow trout	0.92	µg/L
	48 h EC50	Daphnia magna	1.86	µg/L

<b>Persistence and degradability</b>	Cypermethrin. Moderately persistent. Not readily biodegradable. Does not readily hydrolyze.
<b>Bioaccumulation</b>	Cypermethrin. The substance has a potential for bioconcentration.
<b>Mobility</b>	Cypermethrin: Immobile. Not expected to reach groundwater.
<b>Other Adverse Effects</b>	No information available.

### Section 13: DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.
<b>Contaminated Packaging</b>	Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

### Section 14: TRANSPORT INFORMATION

**IMDG/IMO**

UN/ID no	3352
Proper Shipping Name	Pyrethroid pesticide, liquid, toxic (Cypermethrin)
Hazard class	6.1
Packing Group	III
EmS No.	F-A, S-A
Marine Pollutant	Cypermethrin

**ICAO/IATA**

UN/ID no	3352
Proper Shipping Name	Pyrethroid pesticide, liquid, toxic (Cypermethrin)
Hazard class	6.1
Packing Group	III
Marine Pollutant	Cypermethrin

### Section 15: REGULATORY INFORMATION

### International Inventories

A food, food additive, drug, cosmetic, or device, when manufactured, processed or distributed in commerce for use as a food, food additive, drug, cosmetic, or device may not be subject to local notification requirements. Check local regulations for more information.

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Cypermethrin 52315-07-8			X		X	X	X	X
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

## Section 16: OTHER INFORMATION

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**End of Safety Data Sheet**