



## SAFETY DATA SHEET

Arrivo 25 EC

SDS # : 3766-A  
Revision date: 2018-06-28  
Format: AP  
Version 3

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Arrivo 25 EC

**Product Code(s)** 3766-A

**Synonyms** CYPERMETHRIN (FMC 30980); (RS)- $\alpha$ -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name); cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name)

**Active Ingredient(s)** Cypermethrin

**Chemical Family** Pyrethroid Pesticide

**Recommended Use:** Insecticide.

**Restrictions on Use:** Use as recommended by the label.

**Manufacturer/Supplier** FMC Corporation  
Agricultural Solutions  
2929 Walnut Street  
Philadelphia, PA 19104  
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) 0274 3790503  
Fax: (+84) 0274 3790501

#### Emergency telephone

Medical Emergencies:  
1 800 / 331-3148 (ProPharma Group - U.S.A. & Canada)  
1 651 / 632-6793 (ProPharma Group - 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)

### Section 2: HAZARDS IDENTIFICATION

#### GHS - Classification

Aspiration toxicity	Category 1
Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1B
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 3

**Label Elements****Signal Word****Danger****Hazard Statements**

H304 - May be fatal if swallowed and enters airways  
H301 - Toxic if swallowed  
H332 - Harmful if inhaled  
H319 - Causes serious eye irritation  
H317 - May cause an allergic skin reaction  
H351 - Suspected of causing cancer  
H335 - May cause respiratory irritation  
H336 - May cause drowsiness or dizziness  
H410 - Very toxic to aquatic life with long lasting effects  
H226 - Flammable liquid and vapor

**Precautionary Statements - Prevention**

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 protective gloves/protective clothing/eye protection/face protection  
P264 - Wash hands thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing should not be allowed out of the workplace  
P280 - Wear eye protection/ face protection  
P202 - Do not handle until all safety precautions have been read and understood

**Precautionary Statements - Response**

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 Carbon dioxide (CO2), Dry chemical, Alcohol-resistant foam, Water spray for extinction  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
P331 - Do NOT induce vomiting  
P330 - Rinse mouth  
P321 - Specific treatment (see supplemental first aid instructions on this label)  
P312 - Call a POISON CENTER or 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

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P362 + P364 - Take off all contaminated clothing and wash it before reuse

P308 + P313 - If exposed or concerned: Get medical advice/attention

#### Precautionary Statements - Storage

P403 + P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### Precautionary Statements - Disposal

P501 - Dispose of contents/container according to label directions

#### Other Information

None known

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Synonyms** CYPERMETHRIN (FMC 30980); (RS)- $\alpha$ -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name); cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name)

Chemical name	CAS-No	Weight %
Naphtha (petroleum), heavy aromatic	64742-94-5	60-70
Cypermethrin	52315-07-8	26
Pseudocumene	95-63-6	<22
Xylenes	1330-20-7	1-5
Cumene	98-82-8	0.1-1

### 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, Allergic skin reactions.
<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>Flammable properties</b>	Flammable liquids.
<b>Suitable Extinguishing Media</b>	Dry chemical, Carbon dioxide (CO <sub>2</sub> ), Alcohol-resistant foam, Water spray. Avoid heavy hose streams.

<b>Unsuitable extinguishing media</b>	No information available
<b>Specific Hazards Arising from the Chemical</b>	Keep product and empty container away from heat and sources of ignition.
<b>Hazardous Combustion Products</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides (COx), hydrogen cyanide, Chlorine, 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 suitable protective clothing, gloves 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.
<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 rinsate and add to the collected waste. Waste must be classified and labeled prior to recycling or 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

Component	China	Japan	Korea	Australia	Taiwan
Pseudocumene 95-63-6 ( <22 )		OEL: 25 ppm OEL: 120 mg/m <sup>3</sup>			
Xylenes 1330-20-7 ( 1-5 )	TWA: 50 mg/m <sup>3</sup> STEL: 100 mg/m <sup>3</sup>	OEL: 50 ppm OEL: 217 mg/m <sup>3</sup> ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm	STEL 150 ppm STEL 655 mg/m <sup>3</sup> TWA 80 ppm TWA 350 mg/m <sup>3</sup>	STEL 125 ppm STEL 542.5 mg/m <sup>3</sup>
Cumene 98-82-8 ( 0.1-1 )		C2B	S* TWA: 50 ppm	STEL 75 ppm STEL 375 mg/m <sup>3</sup> TWA 25 ppm TWA 125 mg/m <sup>3</sup>	S* STEL 75 ppm STEL 307.5 mg/m <sup>3</sup>

<b>Engineering measures</b>	Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Ventilate all transport vehicles prior to unloading.
-----------------------------	---

### 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>	Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Amber Liquid
<b>Odor</b>	Aromatic Solvent
<b>Color</b>	Amber
<b>Odor threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point/freezing point</b>	No information available
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	43.3 °C / 109.94 °F Tag Closed Cup
<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>	No information available
<b>Vapor density</b>	No information available
<b>Specific gravity</b>	0.976
<b>Water solubility</b>	Emulsifies
<b>Solubility(ies)</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	No information available
<b>Viscosity, dynamic</b>	No information available
<b>Density</b>	8.08 lb/gal
<b>Bulk density</b>	No information available

## Section 10: STABILITY AND REACTIVITY

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

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

**Numerical measures of toxicity - Product Information**

<b>LD50 Oral</b>	137 mg/kg (rat)
<b>LD50 Dermal</b>	> 2000 mg/kg (rabbit)
<b>LC50 Inhalation</b>	2.18 mg/L 4 hr (rat)
<b>Skin corrosion/irritation</b>	Moderately irritating (rabbit).
<b>Serious eye damage/eye irritation</b>	Mildly irritating (rabbit).
<b>Sensitization</b>	Sensitizer.

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

<b>Mutagenicity</b>	Cypermethrin: Not genotoxic in laboratory studies.
<b>Carcinogenicity</b>	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.
<b>Reproductive toxicity</b>	Cypermethrin: No toxicity to reproduction in animal studies.
<b>Developmental toxicity</b>	Cypermethrin: Not teratogenic in animal studies.
<b>STOT - single exposure</b>	May cause respiratory irritation. May cause drowsiness and dizziness.
<b>STOT - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure. See listed target organs below.
<b>Chronic toxicity</b>	Cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver and spleen weight.
<b>Target organ effects</b>	Central Nervous System.
<b>Neurological effects</b>	Cypermethrin: Cause clinical signs of neurotoxicity (body tremors, decreased motor activity and impaired gait) following acute, subchronic or chronic exposure.
<b>Symptoms</b>	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.
<b>Aspiration hazard</b>	Potential for aspiration if swallowed. May be fatal if swallowed and enters airways.

Chemical name	China	IARC
Cypermethrin		Group 2A
Xylenes		Group 3
Cumene		Group 2B

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans Group 2B - Possibly Carcinogenic to Humans Group 3 - Not classifiable as to its carcinogenicity to humans

**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
Cypermethrin	48 h EC50	Crustacea	0.3	µg/L
	96 h LC50	Fish	2.8	µg/L
	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

<b>Persistence and degradability</b>	Cypermethrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable.
<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

<b>UN/ID no</b>	UN3351
<b>Proper Shipping Name</b>	Pyrethroid pesticide, liquid, toxic, flammable
<b>Hazard class</b>	6.1
<b>Subsidiary Hazard Class</b>	3
<b>Packing Group</b>	III
<b>EmS No.</b>	F-E, S-D
<b>Marine Pollutant</b>	Cypermethrin

#### ICAO/IATA

<b>UN/ID no</b>	UN3351
<b>Proper Shipping Name</b>	Pyrethroid pesticide, liquid, toxic, flammable
<b>Hazard class</b>	6.1
<b>Subsidiary Hazard Class</b>	3
<b>Packing Group</b>	III
<b>Special Provisions</b>	Marks: Pyrethroid pesticide, liquid, toxic, flammable (cypermethrin, aromatic hydrocarbons), UN3351
<b>Marine Pollutant</b>	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)
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X		X	X	X	X
Cypermethrin 52315-07-8			X		X	X	X	X
Pseudocumene 95-63-6	X	X	X	X	X	X	X	X
Xylenes 1330-20-7	X	X	X	X	X	X	X	X

Cumene 98-82-8	X	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

**Prepared By:** FMC Corporation

FMC Logo - Trademark of FMC Corporation

© 2018 FMC Corporation. All Rights Reserved.

**Revision date:** 2018-06-28

**Revision note** (M)SDS sections updated.

### Disclaimer

FMC Corporation believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of FMC Corporation, FMC corporation expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

**End of Safety Data Sheet**