SAFETY DATA SHEET

Issuing Date: 2019-10-14 **Revision date:** 2019-10-14 **Version** 1

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name HARMONY® 75XP

Other means of identification
Registration number No information available

Recommended use of the chemical and restrictions on use
Recommended Use: Herbicide

Restrictions on Use: Use as recommended by the label.

Details of the supplier of the safety data sheet

Manufacturer/Supplier
FMC Chemicals K.K.
1-1-1 Otemachi, Chiyoda-ku, Tokyo
Telephone: 03-5208-1010
Telefax: 03-5208-1012

Responsible Department: Agricultural Solutions

Emergency telephone number
03-5208-1010

Section 2: HAZARDS IDENTIFICATION

Classification of the chemical

Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Label Elements

Signal Word WARNING

Hazard Statements
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements - Prevention
• P273 - Avoid release to the environment
Precautionary Statements - Response
• P391 - Collect spillage
Precautionary Statements - Storage
• Not applicable
Precautionary Statements - Disposal
• P501 - Dispose of contents/container to an approved waste disposal plant

Other Information
Other Hazards No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Weight %	ENCS (Japan)	ISHL No	CAS-No
Thifensulfuron-methyl 79277-27-3	75	8-(3)-814		79277-27-3
Naphthalene sulfonic acid-formaldehyde condensate, sodium salt 9084-06-4	1-5	-		9084-06-4
Magnesium stearate 557-04-0	0.5-1.5	-		557-04-0
Kaolin 1332-58-7	10-20	-		1332-58-7

Section 4: FIRST AID MEASURES

Inhalation Move to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a poison control center or doctor for further treatment advice.

Eye Contact In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses after a few minutes and rinse again. Call a poison control center or doctor for further treatment advice.

Ingestion Never give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Have person sip a glass of water if able to swallow.

Indication of immediate medical attention and special treatment needed, if necessary Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

Flammable properties Substance does not burn.

Explosive properties Not explosive.

Suitable Extinguishing Media Water spray, Dry chemical, Foam, Carbon dioxide (CO_2).

Unsuitable extinguishing media High volume water jet.

Specific Hazards Arising from the Chemical Thermal decomposition can lead to release of irritating gases and vapors. Carbon oxides (COx). Nitrogen oxides (NOx).

Special Extinguishing Media Cool containers/tanks with water spray.

Special protective equipment for fire-fighters Wear self-contained breathing apparatus and protective suit.

Other Information Prevent fire extinguishing water from contaminating surface water or the groundwater system. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions Keep people away from and upwind of spill/leak. Avoid dust formation. Use personal protective equipment. For personal protection see section 8.

Environmental Precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Clean and neutralize spill area, tools and equipment for a minimum contact of one hour with vinegar-alcohol solution, then by bleach, soap, and water. 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.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

Storage Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children. Store in original container. Keep out of reach of children and animals. Keep at temperatures below 50°C°C.

Incompatible products Strong oxidizing agents, Strong acids, Strong bases.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical name	Japan	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Magnesium stearate 557-04-0		-	TWA: 10 mg/m³ TWA: 3 mg/m³ (inhalable/respirable particles)
Kaolin 1332-58-7	OEL: 0.5 mg/m³ (respirable dust) OEL: 2 mg/m³ (total dust)	-	TWA: 2 mg/m³

Engineering measures Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

Respiratory Protection 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.

Hand Protection Wear chemical protective gloves made of materials such as nitrile or neoprene.

Eye/Face Protection For dust, splash, mist or spray exposure, wear chemical protective goggles.

Skin and Body Protection Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be

discarded after use if contaminated. In cases of appreciable or prolonged exposure, coveralls of barrier laminate may be required.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Provide regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Keep away from food, drink and animal feeding stuffs. For environmental protection, remove and wash all contaminated protective equipment before re-use. Dispose of rinse water in accordance with local and national regulations.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Granules
Odor	No information available
Color	Light brown
Odor threshold	No data available
Property	
pH	4.4 @ 10 g/l (25°C)
Melting point/freezing point	No information available
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	
Upper flammability limit:	
Lower flammability limit:	
Vapor pressure	No information available
Vapor density	No information available
Specific gravity	No information available
Water solubility	Dispersible in water
Solubility in other solvents	No information available
Partition coefficient	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
Oxidizing properties	Non-oxidizing
Softening point	No information available
VOC content (%)	No information available
Relative density	No information available
Bulk density	710 kg/m^3, loose 750 kg/m^3, packed

Section 10: STABILITY AND REACTIVITY

Reactivity

No data available.

Stability Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact	No information available.
Sensitivity to Static Discharge	No information available.

Hazardous reactions None under normal processing.

Conditions to Avoid Extremes of temperature and direct sunlight
Dust may form explosive mixture in air

Incompatible products Strong oxidizing agents, Strong acids, Strong bases.

Hazardous Decomposition Products Sulfur oxides.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information

LD50 Oral > 5000 mg/kg (rat), US EPA Test Guideline OPP 81-1
LD50 Dermal > 2000 mg/kg (rabbit), US EPA Test Guideline OPP 81-2
LC50 Inhalation 5.3 mg/L 4 hr (rat) (Method: OECD 403)

Numerical measures of toxicity - Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Thifensulfuron-methyl	> 5 g/kg (Rat)	> 2000 mg/kg (Rabbit)	> 7900 mg/m³ (Rat) 4 h
Naphthalene sulfonic acid-formaldehyde condensate, sodium salt	= 3800 mg/kg (Rat)		
Kaolin	> 5000 mg/kg (Rat)	> 5000 mg/kg (Rat)	

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

Skin corrosion/irritation Non-irritating (rabbit).
Method: US EPA Test Guideline OPP 81-5.

Serious eye damage/eye irritation Non-irritating (rabbit).
(Method OPPTS 830.2400).

Sensitization Guinea pig: Did not cause sensitization on laboratory animals.
(Method: OECD 406).

Mutagenicity Thifensulfuron- methyl: Did not show mutagenic effects in animal experiments. Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity Thifensulfuron-methyl: Did not show carcinogenic effects in animal experiments.

Reproductive toxicity Thifensulfuron-methyl: No toxicity to reproduction in animal studies.

Developmental toxicity Thifensulfuron- methyl: Animal testing did not show developmental toxicity.

STOT - single exposure No specific effects after single exposure have been observed.

STOT - repeated exposure Thifensulfuron- methyl: The substance is not classified as specific target organ toxicant, repeated exposure.
The following effects occurred at exposure levels that significantly exceed those expected under the label use conditions.

Oral - feed multiple species
Reduced body weight gain

Oral - feed Rat
Increase in blood urea nitrogen, altered hematology

Oral Rat
Exposure time: 28 d
NOAEL: 529 mg/kg
No adverse effect has been observed in chronic toxicity tests.

Aspiration hazard No aspiration toxicity classification.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Acute toxicity to fish
LC50/96 h/Lepomis macrochirus (ブルーギル サンフィッシュ):>520 mg/L,OECD 203
LC50/96 h/Oncorhynchus mykiss (ニジマス):410 mg/L,OECD203

Acute toxicity to aquatic plants
EC50/14 d/Lemna gibba: 0.00172 mg/L, US EPA OPP 122-2 123-2

Acute toxicity to aquatic invertebrates
LC50/48 h/Daphnia magna (オオミジンコ):320 mg/L,OECD202

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Thifensulfuron-methyl		*NOEC / 21 d / Oncorhynchus mykiss (rainbow trout): > 250 mg/l* *NOEC / 62 d / Oncorhynchus mykiss (rainbow trout): 10.6 mg/l*	*NOEC / 28 d / Americamysis bahia (mysid shrimp): 7.93 mg/l* *EC50 / 21 d / Daphnia magna (Water flea): > 340 mg/l* *NOEC / 21 d / Daphnia magna (Water flea): > 340 mg/l*

Persistence and degradability Not readily biodegradable. (based on active ingredient).

Bioaccumulation Does not bioaccumulate. (based on active ingredient).

Mobility in soil Not mobile in soil.

Other Adverse Effects None known

Section 13: DISPOSAL CONSIDERATIONS

Residual waste In the disposal of residual and other wastes, observe the relevant laws /regulations and local government rules.
Users of the product should contract with the local government or licensed 'Industrial Waste Processors' for disposal of waste.
It is important to let the contractor know well of fire and health hazards of the product, prior to disposal.

Contaminated containers and packages Clean the containers for reuse or dispose them properly in accordance with relevant regulations and local government rules. Completely empty containers prior to disposal.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

UN/ID no	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl)
Hazard class	9
Packing Group	III
Marine Pollutant	Yes

ICAO

UN/ID no	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl)
Hazard class	9
Packing Group	III

ADR/RID

UN/ID no	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl)
Hazard class	9
Packing Group	III

ICAO/IATA

UN/ID no	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thifensulfuron-methyl)
Hazard class	9
Packing Group	III

Section 15: REGULATORY INFORMATION

International Inventories

Component	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Thifensulfuron-methyl 79277-27-3 (75)				8-(3)-814				
Naphthalene sulfonic acid-formaldehyde condensate, sodium salt 9084-06-4 (1-5)	X	X		-	X	X	X	X
Magnesium stearate 557-04-0 (0.5-1.5)	X	X	X	-	X	X	X	X
Kaolin 1332-58-7 (10-20)	X	X	X	-	X	X	X	X

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - 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

Chemical name	Dangerous Substances	organic solvents	Harmful Substances Whose Names Are to be Indicated on the Label	ISHL - Prevention of Hazards Due to Specified Chemical Substances (Class 2)	Prevention of Lead Poisoning
Magnesium stearate 557-04-0	>=1 %	Not applicable	X		

Aviation Law:	Miscellaneous dangerous substances and articles (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)
Vessel Safety Law:	Miscellaneous dangerous substances and articles (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
Agricultural Chemicals Regulation	Herbicide

Law:

Section 16: OTHER INFORMATION

Prepared By:	FMC Corporation
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Revision note	Initial Release.
Other Information	Contact department/person for inquiry Japan Poison Information Centre Osaka Poison #110 (24 hours): (General citizen) 072-727-2499, (Medical institutions) 072-726-9923, Tsukuba Poison #110 (9:00 to 21:00): (General citizen) 029-852-9999, (Medical institutions) 029-851-9999

Disclaimer
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End of Safety Data Sheet