

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	TORIOS® Red flour beetle
PRODUCT CODE	411S-JP(EN)5
COMPANY NAME	Fuji Flavor Co., Ltd.
ADDRESS	3-5-8 Midorigaoka, Hamura-Shi, Tokyo 205-8503, Japan
DEPARTMENT	Ecomone division
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GENERAL USE	Aggregation pheromone of Monitoring Device for Red flour beetle

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION

PHYSICAL HAZARDS	Explosives	Not applicable	
	Flammable gases	Not applicable	
	Aerosols	Not applicable	
	Oxidizing gases	Not applicable	
	Gases under pressure	Not applicable	
	Flammable liquids	Not classified	
	Flammable solids	Not applicable	
	Self-reactive substances and mixtures	Not applicable	
	Pyrophoric liquids	Not applicable	
	Pyrophoric solids	Not applicable	
	Self-heating substances and mixtures	Classification not possible	
	Substances and mixtures which, in contact with water, emit flammable gases	Not applicable	
	Oxidizing liquids	Not applicable	
	Oxidizing solids	Not applicable	
	Organic peroxides	Not applicable	
	HEALTH HAZARDS	Corrosive to metals	Classification not possible
		Acute toxicity – Oral	Classification not possible
		Acute toxicity – Dermal	Classification not possible
		Acute toxicity – Inhalation	Classification not possible
		Skin corrosion/irritation	Classification not possible
Serious eye damage/eye irritation		Classification not possible	
Respiratory sensitization		Classification not possible	
Skin sensitization		Classification not possible	
Germ cell mutagenicity		Classification not possible	
Carcinogenicity		Classification not possible	
ENVIRONMENTAL HAZARDS	Reproductive toxicity	Classification not possible	
	Specific target organ toxicity – Single exposure	Classification not possible	
	Specific target organ toxicity – Repeated exposure	Classification not possible	
	Aspiration hazard	Classification not possible	
	Acute aquatic toxicity	Classification not possible	
	Chronic aquatic toxicity	Classification not possible	
	Hazardous to the ozone layer	Classification not possible	

SYMBOL No symbol

SIGNAL WORD	None
HAZARD STATEMENTS	None
PRECAUTIONARY STATEMENTS	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE	Substance
CHEMICAL NAME	(4R)-4,8-dimethyldecanal
ANOTHER NAME	-
CHEMICAL FORMULA	C ₁₂ H ₂₄ O
CAS NO.	632340-07-9
REFERENCE NUMBER IN GAZETTED LIST IN JAPAN	2-494

4. FIRST-AID MEASURES

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.
SKIN	Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
EYE	After washing at least 15 minutes with clean water, immediately consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.
INGESTION	Rinse mouth immediately with plenty of clean water. Do not induce vomiting. Get immediate medical advice/attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA	Carbon dioxide, powder, alcohol-resistant foam, dry sand, water spray, etc.
EXTINGUISHING MEDIA SHOULD NOT BE USED	High power water jet
SPECIFIC HAZARDS	It will generate a harmful gas (carbon monoxide) by combustion.
SPECIFIC FIRE FIGHTING METHOD	Fire fighting should be done at windward. Discharge water from the fire fighting activity shall be managed properly, and the content shall not cause bad impact to the environment.
PROTECTION FOR PERSON WHO PERFORMS THE FIRE FIGHTING	Wear respiration protection.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Do not get in eyes, on skin, or on clothing. Avoid breathing dust/fume/gas/mist/vapours/spray.
ENVIRONMENTAL PRECAUTIONS	Avoid release to the environment. Direct waste liquid discharge to rivers and soil shall be ensured to not cause bad impact on the environment. Dry sand, soil, sawdust and other waste must be recovered in a container that can be sealed. Disposal should be in accordance with the all national/local rules.

7. HANDLING AND STORAGE

HANDLING	
TECHNICAL MEASURES	Do not get in eyes, on skin, or on clothing. Use in a well-ventilated area. Wash contaminated clothing before reuse. Wear the appropriate protective equipment. In the event of emergency, the area where this product is being used must be installed with the equipment for eye wash and body cleaning. Keep away from ignition sources such as heat / sparks / open flames / hot surfaces. Do not eat, drink or smoke when using this product.

Wash hands thoroughly after handling.

STORAGE

APPROPRIATE CONDITION Store in a well-ventilated place. Keep container tightly closed.
Keep cool.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL CONCENTRATION None
ALLOWED CONCENTRATION None
EQUIPMENT For enclosed facility, if possible use local exhaust ventilation.
PERSONAL PROTECTION
RESPIRATORY PROTECTION Wear mask.
HAND PROTECTION Wear rubber gloves.
EYE PROTECTION Wear protective glasses.
SKIN PROTECTION Wear clothing etc. for experiments if necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Colourless transparent viscous liquid
ODOUR Aldehyde odour
pH No data available
MELTING POINT No data available
BOILING POINT No data available
FLASH POINT 107°C (closed cup)
EVAPORATION RATE No data available
FLAMMABILITY No data available
VAPOUR PRESSURE No data available
VAPOUR DENSITY No data available
RELATIVE DENSITY No data available
WATER SOLUDILITY 3.91 mg/L
PARTITION COEFFICIENT:n-OCTANOL/WATER log Pow:4.8
AUTO-IGNITION TEMPERATURE No data available
DECOMPOSITION TEMPERATURE No data available
VISCOSITY No data available

10. STABILITY AND REACTIVITY

REACTIVITY Stable in normal storage and handling
CHEMICAL STABILITY Stable in normal storage and handling
POSSIBILITY OF HAZARDOUS REACTIONS Stable in normal storage and handling
CONDITIONS TO AVOID Sunlight, heat, open flames, high temperature, sparks, static electricity and other sources of ignition, humidity, moisture, air
INCOMPATIBLE MATERIALS No data available
HAZARDOUS DECOMPOSITION PRODUCTS There is a possibility that the carbon oxide occurs.

11. TOXICOLOGICAL INFORMATION

No data available

12. ECOLOGICAL INFORMATION

ECOTOXICITY No data available
PERSISTENCE/DEGRADABILITY No data available
BIOACCUMULATIVE POTENTIAL No data available

MOBILITY IN SOIL No data available

OTHER ADVERSE EFFECTS No data available

13. DISPOSAL CONSIDERATIONS

RESIDUAL WASTE For disposal, please follow the standards of the related laws and regulations, as well as local government.

POLLUTION CONTAINER AND PACKAGE The container to be recycled by cleaning or perform a proper disposal according to the criteria of the relevant laws and regulations as well as local government.
Completely remove the content when disposing the empty containers.

14. TRANSPORT INTORMATION

NATIONAL REGULATIONS Not applicable

HAZARDS CLASS Not restricted by the classification standard of the United Nations.

UN-No. Not listed.

SPECIAL SPECIAL SAFTY MEASURES Ensure that there is no damage, corrosion or leakage to the container before transporting.

15. REGULATORY INFORMATION

Not applicable

16. Other information

This safety data sheet (SDS), was prepared based on the latest documents available at the moment and it may be revised by new findings. The contents and description serves as the main purpose of providing information, not as a certificate of guarantee. Precautions in this SDS is based on the normal handling the subject. If the product is being used for a special handling, please ensure the suitable implementation of the safety measures. Even though the Company have paid enough attention to the SDS description, it shall not be used as a warranty.

Revision record	2015/9/10	411S-JP(EN)1
	2015/10/27	411S-JP(EN)2
	2015/12/9	411S-JP(EN)3
	2016/3/4	411S-JP(EN)4
	2016/6/24	411S-JP(EN)5