

Product name: SHIN-ETSU MD CTT

1. Identification of the substance/mixture and of the company

1.1. Product identifier:

Identification of the substance: SHIN-ETSU MD CTT

Codling Moth (*Cydia pomonella*) pheromone technical

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

This technical is the mixture of (E,E)-8,10-dodecadien-1-ol, dodecan-1-ol, tetradecan-1-ol and stabilizers.
Pheromone for mating disruption

Important Notice

This product contains mixture.

This SDS applies only in case that the container breaks and the mixture is set free.

All information given hereinafter refer to the contained mixture, the product is safe for use.

Due to the small amount of the chemicals in the product, in case that the container is damaged, a spill of the mixture is highly unlikely.

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

Shin-Etsu Chemical Co., Ltd.

Organic Chemicals Division Fine Chemicals Department (9:00 - 18:00)

4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-0005, Japan

+81-3-6812-2442 (Tokyo Japan)

URL: <http://www.shinetsu.co.jp>E-mail contact: pheromone@shinetsu.jp

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC (24hrs)

+1 703-741-5970 / 1-800-424-9300

2. Hazards identification

2.1 Classification of the substance:

GHS Classification

Physical Hazards

Flammable liquids: Category 4

Self-reactive substances: Not classified

Pyrophoric liquids: Not classified

Self-heating substances: Not classified

Substances which, in contact with water, emit flammable gases: Not classified

Oxidizing liquids: Not classified

Health Hazards

Acute toxicity: Category 4

Product name: SHIN-ETSU MD CTT

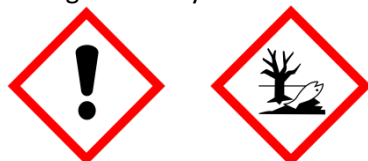
Skin irritation: Category 2
Eye irritation: Category 2B
Respiratory sensitization: Not available
Skin sensitization: Not available
Germ cell mutagenicity: Not classified
Carcinogenicity: Not available
Reproductive toxicity: Not available
Specific target organ toxicity single exposure: Not available
Specific target organ toxicity repeated exposure: Not available
Aspiration hazard: Not available

Environmental Hazards

Acute aquatic toxicity: Category 1
Chronic aquatic toxicity: Category 1

2.2 Label elements:

Pictograms or symbols:



Signal word: "Warning"

Hazard Information:

H227: Flammable liquid
H332: Harmful for inhalation (mist)
H315: Skin irritation
H320: Eye irritation
H400: Very toxic to aquatic life

Precautionary statements:

P102: Keep out of reach of children
P210: Away from Heat/Spark/Open flame/Ignition sources like a high temperature. – No smoking
P261: Avoid breathing mist/vapours/spray/gas/fume/dust.
P264: Wash hands thoroughly after handling.
P271: Use only in well-ventilated place or in open air.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: If on skin: Wash with plenty of soap and water.
P304+P340: In case of inhalation: Transfer to fresh air place, rest with easily respirable posture.
P305+P351+P338: In case of eye contact: Wash with water carefully for several minutes. When easily take off contact lenses are worn, take them off.
P312: When feel unwell, contact medical doctor.
P332+P313: If skin irritation occurs: Get medical advice/attention.
P337+P313: In case of holding eye irritation: Have medical doctor's diagnosis.
P362+P364: Put off polluted wear and wash before reuse.

Product name: SHIN-ETSU MD CTT

Precautionary statement for environment pollution:

P273: Avoid release to the environment without necessity.

P391: Collect spillage.

P501: Discard contents/container according to local regulations/ country laws.

3. Composition / information on ingredients

Description of the mixture:

This technical is the mixture of (E,E)-8,10-dodecadien-1-ol, dodecan-1-ol, tetradecan-1-ol and stabilizers.

Composition/Ingredients:

Identification name	(E,E)-8,10-Dodecadien-1-ol	Dodecan-1-ol	Tetradecan-1-ol
Synonyms	Codlemone, Codlelure	Lauryl alcohol	Myristyl alcohol
Chemical formula	C ₁₂ H ₂₂ O	C ₁₂ H ₂₆ O	C ₁₄ H ₃₀ O
Molecular weight	182	186	214
CAS NO.	33956-49-9	112-53-8	112-72-1
TSCA NO. (USA)	33956-49-9	112-53-8	112-72-1
EINECS NO. (EU)	251-761-2	203-982-0	204-000-3
Impurities contribute to classification	No data	No data	No data
Concentration/Range(wt%)	50 - 60	25 - 35	4 - 10

4. First aid measures

Persons using this product should consult a physician or other medical professional if an accident involving this product in injury. Specific first-aid measures are as follows:

After inhalation: Supply fresh air; seek medical advice in case of symptoms. When feeling woozy or badly, get medical attention. When victim vomiting, turn his face to sideway for taking breath. If breathing is weak, irregular or has stopped, open his airway, administer artificial respiration immediately, and get medical attention immediately.

After skin contact: Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, seek medical advice. Take off all contaminated clothes. Wash the affected areas with soap or mild detergent and large amount of water.

After eye contact: Gently rinse the affected eyes, including under the eyelids, with clean water for at least 15 minutes. To make it effective, widen the eyelid with fingers and move the eyeball. Arrange for transport to the nearest medical facility for examination and treatment by a physician as soon as possible. When wearing contact lenses, remove them and rinse with clean water for 15 minutes.

Product name: SHIN-ETSU MD CTT

After ingestion: If more than trace quantities have been swallowed and if the victim is conscious, wash out his mouth with water and given 250ml of warm water to drink. If victim is unconscious, nothing must be put into the mouth. Seek immediately medical advice.

Prospective acute or late symptoms:

Eye or skin contact: reddening, pain, chemical attack.

Inhalation: dizziness, drowsiness, headache, nausea, weakness feeling.

Safeguard for first aid measure person:

Use self-contained breathing apparatus, chemical cartridge respirator for organic gases, gloves, or other protective equipments as required.

5. Firefighting measures

When igniting high concentrated vapour or mist of this material, may explosion break out by the explosive decomposition. In high oxygen concentrated atmosphere, it has the possibility of combustion or explosion.

Extinguishing media:

Suitable extinguishing agents: CO₂, extinguishing powder or alcohol-resistant foam.

Unsuitable extinguishing agents: High volume water jet.

Special hazards arising from the substance or mixture:

If exposed to heat or flame it decomposes and may generate toxic irritating gases. Special hazards caused by the material, its products of combustion or flue gases: Carbon monoxide and carbon dioxide.

Specific extinction method:

Work for firefighting from windward. Fire could have be expanded by water spray, use appropriate extinguishing media. Transfer the container from near fire to out of area, if safely possible. If it is impossible, cooling down the container by plenty of water spraying. Don't use high volume water jet.

Advice for firefighters:

Use self-contained breathing apparatus, chemical cartridge respirator for organic gases, gloves, or other protective equipments for fire-fighting.

Additional information: Collect contaminated firefighting water separately. It must not enter drains.

6. Accidental release measures

Mark off the area near around leakage by the roping, and seal off except authorized.

Note for preventing hazards:

Enough time ventilation is necessary until finishing the clean-up in the case of indoor leakage. Wear and use self-contained breathing apparatus, chemical cartridge respirator for organic gases, protective gloves, protective goggle, protective boots or other protective apparels for handling vapour concentrated around.

Environmental precautions:

Do not allow to enter drainage system, surface or ground water.

Product name: SHIN-ETSU MD CTT**Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. Mark contaminated area. After indoor leakage ensure enough ventilation to finish cleaning up. Wear and use self-contained breathing apparatus, chemical cartridge respirator for organic gases, protective gloves, protective goggle, protective boots or other protective equipment.

For small spills: Absorb spill with dry sand, earth or charcoal, then place in chemical waste container so as not to run out to sewage or drainage trench or penetration into.

For large spills: Collect with pump and transfer to a metal container with seal. Absorb spill with dry sand or charcoal, and prevent spill from entering sewers, watercourses or low areas, and prevent the penetration into the ground. Mop up the residual spill with charcoal or absorbent materials.

Contaminated absorbents must be disposed of by appropriate measures.

Work at the position of windward.

Note for preventing environment hazards:

Salvage by removal methods as possible, comply environmental benchmarks of sewage, earth, water source.

7. Handling and storage**General items:**

Smoking, eating and drinking should be prohibited in the handling or storage area. Keep away from open flames, hot surface and sources of ignition.

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace. Avoid contact to skin, eye and clothing.

Keep ignition sources away. Do not smoke, eat or drink in work areas. Do not breathe vapours/mists.

If you become bothered by odour, please stop working and take "first-aid measures" specified in the product SDS. To insulate you from unnecessary odour, it may be recommended to wear a protective apparatus, such as a mask, during operations.

Conditions for safe storage, including any incompatibilities:

Observe all local and national regulations for storage of water polluting products.

Do not store together with oxidizing and acidic materials.

Store in cool, dry conditions in tightly closed containers.

Protect from heat and direct sunlight.

8. Exposure controls and personal protection**Control parameters:**

This product contains hazardous chemicals.

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Product name: SHIN-ETSU MD CTT

Exposure controls:

Keep away from foodstuffs, beverages and food. Instantly remove any contaminated garments. Avoid contact with eyes and skin. Wash hands during breaks and at the end of the work.

Hand protection: Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Eye protection: Protective goggles. Face shield etc.

Protective wear for skin and body: Protective boots. Protective apron.

Exposure limits:

ACGH: Not listed.

OSHA: Not listed.

9. Physical and chemical properties

Information on basic physical and chemical properties:

a)	Appearance:	Liquid, colourless to yellowish
b)	Odour:	Fatty waxy odour
c)	Odour threshold:	None
d)	pH (pH meter):	5.6
e)	Melting point/freezing point:	18-22°C
f)	Initial boiling point, boiling range (OECD 103):	110-120°C (2 mmHg)
g)	Flash point (Pensky-Martens):	91°C
h)	Evaporation rate:	No data
i)	Flammability (solid/gas)	No data
j)	Upper/lower flammability or explosive limits:	No data
k)	Vapour pressure (estimated, Antoine's equation):	1.428x10 ⁻² mmHg
l)	Vapour density:	Not required for authorisation
m)	Relative density (pycnometer method):	0.857 g/cm ³ (25°C)
n)	Solubilit(ies) (OECD 105):	25.48 g/l
o)	Partition coefficient: n-octanol/water (OECD 107):	Not tested
p)	Auto-ignition temperature:	Not tested
q)	Decomposition temperature:	No data
r)	Viscosity:	No data
s)	Explosive properties:	Not explosive (judgement)
t)	Oxidising properties:	Not oxidising (judgement)

10. Stability and reactivity

Reactivity:

May react with oxygen and strong oxidizing agents, such as chlorates, peroxides, etc. Conditions to avoid heat, flames and sparks. Material to avoid oxidizing agents.

Product name: SHIN-ETSU MD CTT

Chemical stability:

This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to avoid:

Avoid contact with excessive heat, sparks or open flame.

Incompatible materials:

Oxidizing agents.

Hazardous decomposition products:

Carbon monoxide and carbon dioxide, but no decomposition if used according to specifications.

11. Toxicological information

Information on toxicological effects:

		Data	Note
Acute toxicity:	Oral LD50	>2,500mg/kg (Rats)	Company in house data
		>1,075mg/kg (Quails)	ditto
	Dermal LC50	>1,000mg/kg (Rats)	ditto
	Inhalation (Gas)	No Data	-----
	Inhalation (Mist) LC50	>2.73mg/kg (Rats)	Company in house data
Skin corrosion/irritation:		Slight to moderate dermal irritation (Rabbits)	ditto
Serious eye damage/Eye irritation:		Slight to moderate conjunctival irritation (Rabbits)	ditto
Respiratory or Skin sensitivity:		No skin contact sensitization response (Guinea pigs)	ditto
Germ cell mutagenicity:		Ames test: Negative	ditto
Carcinogenicity:	IARC	Not listed	SCLP
	NTP	Not listed	
	EPA	Not listed	
	ACGIH	Not listed	
	NITE	Not listed	
Reproductive toxicity:		No Data	
Specific target organ toxicity (Single exposure):		No Data	
Specific target organ toxicity (Repeated exposure):		No Data	
Aspiration hazard:		No Data	

12. Ecological information

Toxicity:

Components:

Product name: SHIN-ETSU MD CTT

(E,E)-8,10-Dodecadien-1-ol

LD ₅₀ /14 d	>2,150mg/kg (Bobwhite quail)
LC ₅₀ /96h	>120mg/l (rainbow trout)
EC ₅₀ /48 h	1.3mg wm/l (daphnia)

Dodecan-1-ol

LC ₅₀ /96h	>1.01mg/l (fathead minnow)
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Tetradecan-1-ol

LC ₅₀ /96h	>10g/l (zebrafish)
EC ₅₀ /96h	>50mg/l (Scendesmus)

12.2 Persistence and degradability**Components:**

(E,E)-8,10-Dodecadien-1-ol	rapidly degradable
Dodecan-1-ol	rapidly degradable
Tetradecan-1-ol	rapidly degradable

12.3 Bioaccumulative potential**Components:**

(E,E)-8,10-Dodecadien-1-ol	Partition coefficient: n-octanol/water	log Pow: 4.3
Dodecan-1-ol	Partition coefficient: n-octanol/water	log Pow: 5.1
Tetradecan-1-ol	Partition coefficient: n-octanol/water	log Pow: 6.19

12.4 Mobility in soil

No data available. Exposure not likely.

12.5 Persistence and degradability:

The product is easily biodegradable.

13. Disposal considerations**Waste treatment methods:**

Use this material for its intended purpose. Do not allow product to reach sewage system. If this material must be discarded, meet to criteria of hazardous waste as defined by US EPA or other State and local regulations. If this material classified as hazardous waste, federal law require disposal at licensed hazardous waste disposal facility. When contaminated package is disposed, treated as same as material

Product name: SHIN-ETSU MD CTT

14. Transport information

UN number:

3082 (ADR/RID, IMDG, ICAO)

UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S

Transport hazard class:

9 (ADR/RID, IMDG, ICAO)

Packing group:

III (ADR/RID, IMDG, ICAO)

Special precautions for user:

Environmentally hazardous substance, marine pollutant (IMDG)

15. Regulatory information

Safety, health and environmental/legislation specific for the substance or mixture:

REACH1907/2006, CLP 1272/2008.

Chemical safety assessment:

No chemical safety assessment according to article 14 of Regulation (EC)1907/2006 has been done. The substances is considered to be registered under REACH according to article 15 of Regulation (EC)1907/2006.

16. Other information

These data are based on our present knowledge including the database of registered products under REACH. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This safety data sheet is offered solely for your information, consideration and investigation. The data described in this SDS consist of data on literature, our acquisition data and analogical inference by data of similar chemical substances or products. Shin-Etsu Chemical Co., Ltd. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. Final determination of suitability of any material is the sole responsibility of the user.
