

Material Safety Data Sheet
According to Regulation (EC) No 1907/2006

Version 2

Revision date: 02.09.2010

Trade name: Isomate A/OFM

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

1.1. Product identifier

Trade name: Isomate A/OFM

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

Pheromone for mating disruption.

1.3. Details of the supplier of the safety data sheet

CBC (EUROPE) Ltd

Via E. Majorana, 2

20834 Nova Milanese (MB)

Phone: +39-0362-365079

Fax: +39-0362-41273

e-mail: biversen@cbceurope.it

Manufacturer:

Shin-Etsu Chemical co. Ltd

6-1 Ohtemachi 2-chome - Chiyoda-ku, Tokyo, 100-0004, Japan

1.4. Emergency telephone number

02 66 10 10 29 (24h)

Centro Antiveleni

Azienda Ospedaliera

Niguarda Ca'Granda

2. Hazards identification

2.1. Classification of the substance or mixture

Xi, Irritant

N, Dangerous for the environment

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements



Xi, Irritant



N, Dangerous for the environment

Risk phrases

Irritating to skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. Avoid contact with skin and eyes. Do not empty into drains. Wear suitable protective clothing and gloves. If swallowed, seek medical advice immediately and show this container or label. Avoid release to the environment. Refer to special instructions/safety data sheets.

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2.3 Other hazards

The mixture does NOT meet the criteria for PBT or vPvB according to Annex XIII of Regulation (EC) 1907/2006.

3. Composition / information on ingredients

3.2 Mixtures

(Z)- 8-Dodecenyl acetate CAS:28079-04-1 EINECS:248-823-6	Xi;	R 38	34-40 %
(E)-5- Decenyl acetate CAS:38421-90-8 EINECS:253-923-8	Xi;	R 38	26-32 %
(E)-8- Dodecenyl acetate CAS:8363-29-0 EINECS:253-9-4-4	Xi;	R 38	1.5-2.5 %
(Z)-8-Dodecen-1-ol CAS:40642-40-8 EINECS:255-019-9	Xi;	R 38	0.2-0.5 %
(E)-5-Decen-1-ol CAS:56578-18-8 EINECS:260-267-6	Xi;	R 38	0.1-0.4 %

Additional information: For the wording of the listed risk phrases refer to section 16.

4. First aid measures

4.1 Description of first aid measures

General information: Remove contaminated clothing.

After inhalation: Supply fresh air; seek medical advice in case of symptoms.

After skin contact: Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

No information available

4.3 Indication of any immediate medical attention and special treatment needed.

After eye contact: Rinse opened eye for several minutes under running water. Then seek medical advice.

After swallowing: Rinse out mouth and then drink plenty of water. Seek immediately medical advice.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, extinguishing powder or water spray/fog. Fight larger fires with water spray/fog or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents: Water with a full water jet.

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5.2 Special hazards arising from the substance or mixture

Special hazards caused by the material, its products of combustion or flue gases: Carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Protective equipment: Put on breathing apparatus.

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

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

6.2 Environmental precautions

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

6.3 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

6.4 Reference to other sections

None

7. Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace. Avoid skin and eye contact. Keep ignition sources away. Do not smoke, eat or drink in work areas.

7.2 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 well sealed containers.

Protect from heat and direct sunlight.

7.3 Specific end use(s)

None

8. Exposure controls and personal protection

8.1 Control parameters

This product contains hazardous chemicals. This MSDS applies only in case that container breaks and the chemicals are set free.

All information given hereinafter refer to the contained chemicals.

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

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8.2 Exposure controls

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

Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Material of gloves: Nitrile or neoprene
 Eye protection: Safety glasses.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

For (Z)- 8-Dodecenyl acetate, (E)-8- Dodecenyl acetate, (Z)-8-Dodecen-1-ol

a)	Appearance:	Liquid, colourless to yellowish
b)	Odour:	Characteristic
c)	Odour threshold:	None
d)	pH (pH meter):	4.7
e)	Melting point/freezing point:	Not required for authorisation
f)	Initial boiling point, boiling range (OECD 103):	115-125°C/3mmHg
g)	Flash point (Pensky-Martens):	108°C
h)	Evaporation rate:	Not required for authorisation
i)	Flammability (solid/gas)	Not required for authorisation
j)	Upper/lower flammability or explosive limits:	Not required for authorisation
k)	Vapour pressure (estimated, Antoine's equation):	5.31x10 ⁻³ mmHg
l)	Vapour density:	Not required for authorisation
m)	Relative density (pycometer method):	0.879 (20°C)
n)	Solubilit(ies) (OECD 105):	insoluble in water, easily soluble in organic solvent except DMSO and ethylene glycol
o)	Partition coefficient: n-octanol/water (OECD 107):	more than 10000
p)	Auto-ignition temperature:	Not tested
q)	Decomposition temperature:	Not required for authorisation
r)	Viscosity (Ubbelohde's method):	3.51 c.s.
s)	Explosive properties:	Not explosive (judgement)
t)	Oxidising properties:	Not oxidising (judgement)

For (E)-5-decenyl acetate

a)	Appearance:	Light yellow transparent oily liquid
b)	Odour:	Mild waxy and sweet
c)	Odour threshold:	None
d)	pH (pH meter):	6.1
e)	Melting point/freezing point:	Not required for authorisation
f)	Initial boiling point, boiling range (OECD 103):	114-116°C/2KPa
g)	Flash point (Open cup):	100°C
h)	Evaporation rate:	Not required for authorisation
i)	Flammability (solid/gas)	Not required for authorisation
j)	Upper/lower flammability or explosive limits:	Not required for authorisation
k)	Vapour pressure (estimated, Antoine's equation):	0.0003 Pa
l)	Vapour density:	Not required for authorisation
m)	Relative density (pycometer method):	0.883 (20°C)
n)	Solubilit(ies) (OECD 105):	insoluble in water, easily soluble in organic solvent except DMSO and ethylene glycol

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- | | | |
|----|--|--------------------------------|
| o) | Partition coefficient: n-octanol/water (OECD 107): | more than 10000 |
| p) | Auto-ignition temperature: | Not tested |
| q) | Decomposition temperature: | Not required for authorisation |
| r) | Viscosity (Ubbelohde's method): | 3.08 c.s. |
| s) | Explosive properties: | Not explosive (judgement) |
| t) | Oxidising properties: | Not oxidising (judgement) |

For (E)-5-decen-1-ol

- | | | |
|----|--|---|
| a) | Appearance: | Light yellow transparent oily liquid |
| b) | Odour: | Mild waxy and sweet |
| c) | Odour threshold: | None |
| d) | pH (pH meter): | 6.8 |
| e) | Melting point/freezing point: | Not required for authorisation |
| f) | Initial boiling point, boiling range (OECD 103): | 98-105°C/2KPa |
| g) | Flash point (Open cup): | 98°C |
| h) | Evaporation rate: | Not required for authorisation |
| i) | Flammability (solid/gas) | Not required for authorisation |
| j) | Upper/lower flammability or explosive limits: | Not required for authorisation |
| k) | Vapour pressure (estimated, Antoine's equation): | 0.001 Pa |
| l) | Vapour density: | Not required for authorisation |
| m) | Relative density (pycometer method): | 0.846 (20°C) |
| n) | Solubilit(ies) (OECD 105): | insoluble in water, easily soluble in organic solvent |
| o) | Partition coefficient: n-octanol/water (OECD 107): | more than 10000 |
| p) | Auto-ignition temperature: | Not tested |
| q) | Decomposition temperature: | Not required for authorisation |
| r) | Viscosity (Ubbelohde's method): | 13.3 c.s. |
| s) | Explosive properties: | Not explosive (judgement) |
| t) | Oxidising properties: | Not oxidising (judgement) |

9.2 Other information

None

10. Stability and reactivity

10.1 Reactivity

No dangerous reactions known.

10.2 Chemical stability

Stable if stored as recommended

10.3 Possibility of hazardous reactions

No hazardous reaction is known

10.4 Conditions to avoid

Avoid contact with strong oxidisers, excessive heat, sparks or open flame

10.5 Incompatible materials

Oxidizing agents

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Strong acids.

10.6 Hazardous decomposition products

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

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 relevant values for the assessment:

67446-07-5 (Z)-5- Decenylacetate	
Oral LD50	> 2000 mg/kg (rat)
38421-90-8 (E)-5- Decenylacetate	
Oral LD50	> 2000 mg/kg (rat)
28079-04-1 (Z)- 8-Dodecenyl acetate	
Oral LD50	> 2000 mg/kg (rat)

Primary irritant effect:

On the skin:	Irritating for the skin.
On the eye:	Slightly irritating.
Corrosivity:	Not corrosive
Sensitization:	No sensitizing effect known.

Repeated dose toxicity:	repeated dose and/or long term exposure not relevant
Carcinogenicity:	not relevant, exposure not exceeding natural background levels
Mutagenicity:	no information available
Toxicity for reproduction:	not relevant, exposure not exceeding natural background levels

No likely exposure routes.

12. Ecological information

12.1 Toxicity

28079-04-1 (Z)- 8-Dodecenyl acetate	
EC50/48 h	> 30 mg/l (daphnia)
LC50/96 h	> 1000 mg/l (fish)

12.2 Persistence and degradability

The product is easily biodegradable.

12.3 Bioaccumulative potential

No data available. Exposure not likely

12.4 Mobility in soil

No data available. Exposure not likely.

12.5 Results of PBT and vPvB assessment

The product is easily biodegradable

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12.6 Other adverse effects

None

13. Disposal considerations

13.1 Waste treatment methods

Product

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

Uncleaned packagings

Disposal must be made according to official regulations.

14. Transport information

14.1 UN number

3082 (ADR/RID, IMDG, ICAO)

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S

14.3 Transport hazard class(es)

9 (ADR/RID, IMDG, ICAO)

14.4 Packing group

III (ADR/RID, IMDG, ICAO)

14.5 Environmental hazards

Environmentally hazardous substance, marine pollutant (IMDG)

14.6 Special precautions for user

None

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

None

15. Regulatory information

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

Mixture evaluated according to Directive 91/414/EEC.

Authorized by the Ministry of Health Italy: no. 14709 date: 11/05/2010.

15.2 Chemical safety assessment

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

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16. Other information

The Safety Data Sheet has been revised the 02/09/2010 in order to comply with Commission Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006.

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The product has been classified/labelled in accordance with EC Directive 1999/45/EC as required by Regulation (EC) 1272/2008.

Hazard symbols and classifications:



Xi, Irritant



N, Dangerous for the environment

Risk phrases

R38 Irritating to skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

S2 Keep out of the reach of children.

S13 Keep away from food, drink and animal feedingstuffs.

S20/21 When using do not eat, drink or smoke.

S24/25 Avoid contact with skin and eyes.

S29 Do not empty into drains.

S36/37 Wear suitable protective clothing and gloves.

S46 If swallowed, seek medical advice immediately and show this container or label

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.