

Safety Data Sheet according to 91/155/EEC

Flügel GmbH

Revision date : 14.12.2005

Revision no. : 1,00

TYPOSAN

00446-0026

1. Identification of the substance/preparation and of the company/undertaking**1.1 Identification of the substance or preparation**

TYPOSAN

Use of the substance/preparation

Product for use in forestry

1.2 Company/undertaking identification

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2. Composition/information on ingredients

Chemical characterization (preparation)

Species specific bark beetle attractants in dispenser for Ips Typographus, pheromone, evaporating active components (VP).

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
204-068-4	115-18-4	2-Methylbut-3-en-2-ol	< 75 %	F, Xn, Xi R11-22-36

Full text of each relevant R phrase can be found in heading 16.

3. Hazards identification**Classification**

Symbols : Highly flammable, Harmful

R-phrases :

Highly flammable.

Harmful if swallowed.

Irritating to eyes.

4. First aid measures**General information**

Remove contaminated soaked clothing immediately..

If you feel unwell, seek medical advice.

After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

If you feel unwell, seek medical advice.

After contact with skin

Wash off with soap and plenty of water.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If eye irritation persists, consult a specialist.

After ingestion

Rinse out mouth and give plenty of water to drink.

Consult a physician.

5. Fire-fighting measures**Suitable extinguishing media**

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Extinguishing media which must not be used for safety reasons

Full water jet

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may produce:

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Protective suit

Additional information

Cool containers at risk with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures**Personal precautions**

Avoid contact with skin, eyes and clothing.

Ensure adequate ventilation.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder)..

Shovel into suitable container for disposal.

7. Handling and storage**7.1 Handling****Advice on safe handling**

Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Take measures against electrostatically charging.

7.2 Storage**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

Advice on storage compatibility

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Storage temperature between - 20°C to 5°C

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Storageclass (VCI) :

4.1 B

8. Exposure controls/personal protection**8.1 Exposure limit values****8.2 Exposure controls****Occupational exposure controls**

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Avoid contact with eyes and skin.

Wash hands before breaks and immediately after handling the product.

When using, do not eat, drink or smoke.

Take off immediately all contaminated clothing.

Hand protection

Protective gloves resistant to chemicals made off nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Camatril 735> made by www.kcl.de.

Glove material must be impermeable and resistant against product / substance / preparation. Gloves material should comply with breakthrough times, permeation rates, and degradation.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Eye protection

Tightly fitting goggles

Skin protection

Long sleeved clothing.

9. Physical and chemical properties**9.1 General information**

Physical state : Liquid on inert carrier

Colour : White

Odour : like terpene

9.2 Important health, safety and environmental information

Test method

Changes in the physical state

Flash point : 11 °C *)

Flammability

Lower explosion limits : n. d.

Upper explosion limits :

Ignition temperature : 380 °C *)

Vapour pressure : 137 hPa *)
at (50 °C)

Water solubility : Insoluble

*) 2-Methylbut-3-en-2-ol

10. Stability and reactivity

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Conditions to avoid

No decomposition if stored and applied as directed.

Materials to avoid

Oxidizing agents.

Hazardous decomposition products

Fire may produce:

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Additional information

No decomposition if stored and applied as directed.

11. Toxicological information**Empirical data on effects on humans**

Harmful if swallowed.

Irritating to eyes.

If appropriately handled and if in accordance with the general hygienic rules, no damages to health have become known.

12. Ecological information**Additional information**

Ecological injuries are not known or expected under normal use.

Hazard to waters

Product is not allowed to discharge into the ground water or aquatic environment.

13. Disposal considerations**Advice on disposal**

Can be incinerated, when in compliance with local regulations.

Where possible recycling is preferred to disposal.

Waste disposal number of used product :

020108 WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING; wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing; agrochemical waste containing dangerous substances
Classified as hazardous waste.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

14. Transport information**Land transport (ADR/RID)**

ADR/RID class :	4.1
Hazard-no. :	40
UN number :	3175
Hazard label :	4.1
ADR/RID packing group :	II

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Description of the goods

Solids containing flammable liquid, n.o.s. (2-Methylbut-3-en-2-ol)

Remarks (land transport)

LQ 8: combination packaging: 3 kg / 30 kg (total gross mass); trays: 0,5 kg / 20 kg (total gross mass).

Inland waterways transport**Marine transport**

IMDG code :	4.1
UN number :	375
Marine pollutant :	No
EmS :	F-A; S-I
IMDG packing group :	II
Hazard label :	4.1

Description of the goods

SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (2-methylbut-3-en-2-ol)

Remarks (marine transport)

Limited quantities (chapter 3.4): combination packaging: 1 kg / 30 kg (total gross mass); trays: 1 kg / 20 kg (total gross mass).

Air transport

ICAO/IATA-DGR :	4.1.	
UN/ID number :	3175	
Hazard label :	4.1	
IATA-packing instructions - Passenger :		415
IATA-max. quantity - Passenger :		15 kg
IATA-packing instructions - Cargo :		417
IATA-max. quantity - Cargo :		50 kg
ICAO packing group :	II	

Description of the goods

SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (2-methylbut-3-en-2-ol)

15. Regulatory information**15.1 Labelling**

Indication of danger : F - Highly flammable; Xn - Harmful

Labelling according to EC-guidelines ; According to EC-regulations the product is to be labelled as follows:

Hazardous component(s) to be indicated on label

2-Methylbut-3-en-2-ol

R phrases :

11	Highly flammable.
22	Harmful if swallowed.
36	Irritating to eyes.

S phrases :

26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
35	This material and its container must be disposed of in a safe way.

15.2 National regulations

1999/13/EC (VOC) : < 75 %

16. Other information

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List of relevant R phrases

- | | |
|----|-----------------------|
| 11 | Highly flammable. |
| 22 | Harmful if swallowed. |
| 36 | Irritating to eyes. |

Other data

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)