

TOPIK

Version 8

Revision Date 29.08.2005

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT INFORMATION

Product name : TOPIK
Design Code : A8424G
Use : Herbicide
Company : Syngenta Crop Protection AG
 Postfach
 CH-4002 Basel
 Switzerland
Telephone : +41 61 323 11 11
Telefax : +41 61 323 12 12
Emergency telephone number : +44 1484 538444



Irritant



Dangerous for the environment

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Symbol(s)	R-phrase(s)	Concentration
clodinafop-propargyl	105512-06-9		Xn, N	R22 R43 R50/53	8.3 % W/W
cloquintocet-mexyl	99607-70-2		Xi, N	R43 R50/53	2 % W/W
cyclohexanone	108-94-1	203-631-1	Xn	R10 R20	>= 8 - <= 15 % W/W
1-propanol, 2-methyl-	78-83-1	201-148-0	Xi	R10 R37/38 R41 R67	>= 1 - <= 2 % W/W
benzenesulfonic acid, dodecyl-, calcium salt	26264-06-2	247-557-8	Xi	R38 R41	>= 1 - <= 5 % W/W
oils, pine	8002-09-3		Xi	R38	>= 25 - <= 35 % W/W
oxirane, methyl-, polymer with oxirane, mono(nonylphenyl)	68891-11-2			R52/53	>= 8 - <= 15 % W/W

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ether, branched					
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For the full text of the R phrases mentioned in this Section, see Section 16.

3. Hazards identification

Irritating to eyes and skin.

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

4. FIRST AID MEASURES

- General advice** : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.
- Inhalation** : Remove to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.
Call a physician or Poison Control Center immediately.
- Skin contact** : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- Eye contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label.
Do not induce vomiting.
- Medical advice** : There is no specific antidote available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media** : Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
alcohol-resistant foam
- Extinguishing media which must not be used for safety reasons** : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting** : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

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Flash back possible over considerable distance.

- Special protective equipment for fire-fighters** : In the event of fire, wear self-contained breathing apparatus.
- Further information** : Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Refer to protective measures listed in sections 7 and 8.
Keep people away from and upwind of spill/leak.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Remove all sources of ignition.
Pay attention to flashback.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up** : Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
- Additional advice** : If the product contaminates rivers and lakes or drains inform respective authorities.

7. HANDLING AND STORAGE**HANDLING**

- Advice on safe handling** : Avoid contact with skin and eyes.
When using, do not eat, drink or smoke.
Take precautionary measures against static discharges.
Use only in an area containing flame proof equipment.
For personal protection see section 8.

STORAGE

- Requirements for storage areas and containers** : Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feed.
Keep away from heat and sources of ignition.
Keep away from combustible material.
Keep in an area equipped with sprinklers.
No smoking.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	Exposure limit(s)	Value type	Source
clodinafop-propargyl	1.0 mg/m ³	8 h TWA	SYNGENTA
cloquintocet-mexyl	10 mg/m ³	8 h TWA	SYNGENTA
cyclohexanone	100 mg/m ³ 200 mg/m ³ 80 mg/m ³ 100 mg/m ³ 700 ppm 10 ppm 20 ppm	8 h TWA 15 min STEL 8 h TWA 8 h TWA IDLH 8 h TWA 15 min STEL	SUVA SUVA DFG ACGIH NIOSH UK HSE
2-methylpropan-1-ol	1,600 ppm 50 ppm 150 mg/m ³ 100 ppm 300 mg/m ³ 50 ppm 152 mg/m ³ 100 ppm 300 mg/m ³	15 min STEL 8 h TWA	NIOSH SUVA SUVA ACGIH DFG

ENGINEERING MEASURES

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.

The extent of these protection measures depends on the actual risks in use.

If airborne mists or vapors are generated, use local exhaust ventilation controls.

Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.

Where necessary, seek additional occupational hygiene advice.

PERSONAL PROTECTIVE EQUIPMENT

Protective measures : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.

Respiratory protection : A gas and vapor filter respirator may be necessary until effective technical measures are installed.
Protection provided by air-purifying respirators is limited.
Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Hand protection : Chemical resistant gloves should be used.
Gloves should be certified to an appropriate standard.

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Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure.
The breakthrough time of gloves varies according to the thickness, material and manufacturer.
Gloves should be changed when breakthrough is suspected.
Suitable material
nitrile rubber

Eye protection : If eye contact is possible, use tight-fitting chemical safety goggles.

Skin and body protection : Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material.
Wash with soap and water after removing protective clothing.
Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.)
Wear as appropriate:
impervious protective suit

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid

Colour : light brown to brown

pH : 3 - 7 at 1 % w/v

Boiling point/range : > 143 °C

Flash point : 62 °C

Explosive properties : Not explosive

Density : 0.95 - 0.98 g/cm³ at 20 °C

Water solubility : Miscible

Solubility in other solvents : Miscible

Viscosity, dynamic : 35.98 mPa.s at 20 °C
: 16.05 mPa.s at 40 °C

Surface tension : 33.6 - 34.0 mN/m at 20 °C

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10. STABILITY AND REACTIVITY

- Hazardous decomposition products** : Combustion or thermal decomposition will evolve toxic and irritant vapors.
- Hazardous reactions** : None known.
Hazardous polymerization does not occur.
Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity** : LD50 Rat, > 3,000 mg/kg
- Acute dermal toxicity** : LD50 Rat, > 4,000 mg/kg
- Skin irritation** : Rabbit: Irritant
- Eye irritation** : Rabbit: Irritant
- Sensitization** : Guinea Pig
not sensitizing
- Long term toxicity**
- Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION**ELIMINATION INFORMATION (PERSISTENCE AND DEGRADABILITY)**

- Bioaccumulation** : Cloquintocet-mexyl does not bioaccumulate.
Clodinafop-propargyl does not bioaccumulate
- Stability in water** : Cloquintocet-mexyl is not persistent in water
Clodinafop-propargyl is not persistent in water
- Stability in soil** : Cloquintocet-mexyl is not persistent in soil.
Clodinafop-propargyl is not persistent in soil.
- Mobility** : Cloquintocet-mexyl is immobile in soil
Clodinafop-propargyl has high to very high mobility in soil

ECOTOXICITY EFFECTS

- Toxicity to fish** : LC50 Salmo trutta (trout), 3.2 mg/l , 96 h

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- : LC50 Bluegill, 7.0 mg/l , 96 h
- Toxicity to aquatic invertebrates** : EC50 Daphnia magna (water flea), 35.0 mg/l , 48 h
- Toxicity to algae** : EBC50 Scenedesmus subspicatus (green algae), 12 mg/l , 72 h

13. DISPOSAL CONSIDERATIONS

- Product** : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations.
- Contaminated packaging** : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken for local recycling or waste disposal.
Do not re-use empty containers.

14. TRANSPORT INFORMATION**Land transport***ADR/ RID:*

UN-No: 3082
Class: 9
Danger Label Number : 9
Packaging group III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CLODINAFOP-PROPARGYL)

Sea transport*IMDG:*

UN-No: 3082
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CLODINAFOP-PROPARGYL)

Marine pollutant : Marine pollutant

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Air transport*IATA-DGR*

UN-No: 3082
Class: 9
Danger Label Number : 9
Packaging group: III
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CLODINAFOF-PROPARGYL)

15. REGULATORY INFORMATION**Labelling according to EC Directives**

Symbol(s)	: Xi N	Irritant Dangerous for the environment
R-phrase(s)	: R36/38 R51/53	Irritating to eyes and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S 2 S13 S20/21 S35 S57	Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. When using do not eat, drink or smoke. This material and its container must be disposed of in a safe way. Use appropriate container to avoid environmental contamination.
Exceptional labelling of special preparations	: To avoid risks to man and the environment, comply with the instructions for use. Contains clodinafop-propargyl and cloquintocet-mexyl. May produce an allergic reaction.	

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16. OTHER INFORMATION**Further information**

Text of R phrases mentioned in Section 2:

R10	Flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapors may cause drowsiness and dizziness.

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