

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. Product identifier : TALSTAR 10 EC
1.2. Relevant identified uses of the substance or mixture and uses advised against : Insecticide / Miticide
1.3. Details of the supplier of the safety data sheet
Name : FMC CHEMICAL Sprl
Address : Boulevard de la Plaine, 9/3
1050 BRUXELLES
BELGIQUE
Telephone number : 00 32 2 6459584
Telefax number : 00 32 2 6459655
E-mail : msdsinfo@fmc.com
1.4. Emergency telephone number : 00 32 14 58 45 45

SECTION 2 HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****MOST IMPORTANT HAZARDS****Adverse human health effects**

- : Harmful by inhalation and if swallowed
Harmful : May cause lung damage if swallowed
Irritating to eyes and respiratory system
Repeated exposure may cause skin dryness or cracking

Environmental effects

- : Very toxic to aquatic organisms.
May cause long-term adverse effects in the aquatic environment.

Physical and chemical hazards**- Fire or explosion**

- : Flammable liquid
Burning and thermal decomposition may form toxic by-products

Classification of the product

- : According to European regulations (67/548/EEC & 1999/45/EC), this product is classified as :
R10
Xn; R20/22-65
Xi; R36/37
N; R50/53
R66

2.2. Label elements**Identification of the hazardous product :**

- : Active ingredient(s) : Bifenthrin
Other substance(s) : Solvent naphtha (petroleum), light arom.

- Symbols and indications of danger**- R phrases**

- : - HARMFUL (Xn) - DANGEROUS FOR THE ENVIRONMENT (N)
: R10 : Flammable.
R20/22 : Harmful by inhalation and if swallowed.
R36/37 : Irritating to eyes and respiratory system.



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SECTION 2 HAZARDS IDENTIFICATION (continued)

- S phrases** : R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 : Harmful : may cause lung damage if swallowed.
R66 : Repeated exposure may cause skin dryness or cracking.
: S2 : Keep out of the reach of children.
S13 : Keep away from food, drink and animal feedingstuffs.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 : Wear suitable gloves.
S57 : Use appropriate container to avoid environmental contamination.
S62 : If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.
- Additional phrases** : The following must appear on the label :
To avoid risks to man and the environment, comply with the instructions for use
Contains : Bifenthrin. May produce an allergic reaction.
- 2.3. Other hazards** : None, to our knowledge

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE

Chemical nature : Pyrethroid pesticide based on Bifenthrin

Components contributing to the hazard :

Substance name	Contents	CAS No	EC No	Index No	Classification
Bifenthrin	: 11 %	82657-04-3	-----	-----	----- T; R23/25 R43 N; R50-53 ----- Acute Tox. 3 (oral) H301 Acute Tox. 3 (inhal) H331 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410
Solvent naphtha (petroleum), light arom.	: < 82 %	64742-95-6	265-199-0	649-356-00-4	----- R10 Xi; R65 R66 R67 Xi; R37 N; R51-53 ----- Asp. Tox 1 H304 Flam. Liq. 3 H226 STOT SE 3 H335 STOT SE 3 H336 STOT RE EUH066 Aquatic Chronic 2 H411
Calcium dodecylbenzenesulphonate	: < 3 %	26264-06-2	247-557-8	-----	----- Xi; R38-41 ----- Eye Dam 1 H318 Skin Irrit. 2 H315
2-Ethylhexan-1-ol	: < 3 %	104-76-7	203-234-3	-----	----- Xi; R36/38 ----- Eye irrit 2 H319 Skin Irrit. 2 H315

Further information : Full text of R and H phrases : see section 16

SECTION 4 FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation : Move the affected person to the fresh air
If the person feels unwell :

FMC CHEMICAL Sprl

Boulevard de la Plaine, 9/3 1050 BRUXELLES BELGIQUE



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SECTION 4 FIRST AID MEASURES (continued)

- Skin contact** : Call a doctor
: Remove all contaminated clothing and footwear
Wash immediately with plenty of soap and water
In case of redness or irritation, call a doctor
- Eye contact** : Rinse immediately and thoroughly with plenty of water whilst keeping the eyes wide open (at least 15 minutes)
If irritation persists, consult an eye specialist
- Ingestion** : Rinse mouth out with water
If the person is fully conscious, make him/her drink water. Never give an unconscious person anything to drink
Never attempt to induce vomiting
Call a doctor immediately
- 4.2. Most important symptoms and effects, both acute and delayed** : Bleeding from the nose
Tremors
Convulsions
- 4.3. Indication of any immediate medical attention and special treatment needed** : Treat symptomatically and supportively in response to reactions of patient

SECTION 5 FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : : Carbon dioxide (CO₂)
Foam
Powders

Not suitable extinguishing media : : Water (the product is dangerous for the environment - do not dilute it)

5.2. Special hazards arising from the substance or mixture : On heating :
Toxic gases are released

5.3. Advice for fire-fighters : Isolate fire area. Evacuate downwind
Contain the extinguishing fluids by bunding (the product is hazardous for the environment)
Do not breath fumes
Do not attempt to fight the fire without suitable protective equipment :
Self-contained breathing apparatus
Complete protective clothing

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures : For non-emergency personnel :
Avoid contact with skin and eyes
No flames, no sparks. Eliminate all sources of ignition.
Do not smoke
In case of important spillage :
Mark out the contaminated area with signs and prevent access to unauthorized personnel
For emergency responders :
Do not attempt to fight the fire without suitable protective equipment
For further information see section 8



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SECTION 6 ACCIDENTAL RELEASE MEASURES (continued)

- 6.2 Environmental precautions** : Do not allow product to spread into the environment
Contain the spilled material by bunding (product is hazardous for the environment)
- 6.3. Methods and material for containment and cleaning up**
- **Recovery** : Recover the product with absorbent material
 - **Neutralization :** : Absorb spillage with:
 - earth or sandNeutralize non-recoverable product with :
 - a basic solution and an appropriate alcohol (methanol, ethanol or isopropanol)
 - **Cleaning/decontamination** : Wash with plenty of water and detergent
 - **Disposal** : Dispose of contaminated material at an authorized site.
- 6.4 Reference to other sections** : For further information see section 13

SECTION 7 HANDLING AND STORAGE

7.1. Precautions for safe handling

- Technical measures** : Use non-sparking tools
Vapour extraction at source
- Precautions** : Avoid any direct contact with the product
Smoking is forbidden
- Hygiene measures** : Do not drink, eat or smoke in the workplace
Always wash your hands after handling the product

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions

- **Recommended** : Store :
 - the container tightly closed and dry
 - in a cool, well-ventilated area
 - away from direct sunlight
 - away from any source of ignition
 - out of reach of children
 - away from food and drinks and animal foodstuffs

Incompatible materials : Strong oxidizing agents

Packaging materials

- **Recommended** : Original packaging
- **Not suitable** : Rubbers
Plastic materials

7.3. Specific end use(s) : No information available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits : No specific limit

8.2. Exposure controls

Engineering measures : Ensure good ventilation of the work station
Extraction to remove vapours at their source



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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

Personal protective equipment

- Respiratory protection : In the event of insufficient ventilation :
Filtering respiratory protective device with a pesticide canister
- Hand protection : Handling the product (as is) :
Nitrile-rubber protective gloves
- Eye protection : Safety spectacles with side shields
- Skin and body protection : Impermeable suit (Hypalon, Tyvek, Saranex, PVC...).
Safety foot-wear
- Collective emergency equipments : Safety shower

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : yellow pale
- Odour : of chemical
- Odour threshold : Not determined
- pH : 4.99 (Aqueous dispersion - 1 %)
- Specific temperatures
 - Boiling : Not determined
 - Melting point : Not determined
- Decomposition temperature : Not determined
- Flammability characteristics
 - Flash point : 46 °C
 - Auto-ignition temperature : Not determined
- Oxidizing properties : Non oxidizing material according to EC criteria
- Explosive limits in air : Not determined
- Vapour pressure : Not determined
- Vapour density (air = 1) : Not determined
- Relative density (water = 1) : 0.9051 (20 °C)
- Solubility
 - in water : An emulsion is formed.
- Octanol/water partition coefficient : Not determined
- Kinematic viscosity : 1.45 mm²/s (40 °C)
1.14 mm²/s (20 °C)
- Surface tension : 28.3 mN/m (25 °C)
27.4 mN/m (40 °C)
- Evaporation rate : Not determined
- 9.2 Other information : No information available



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SECTION 10 STABILITY AND REACTIVITY

- 10.1. Reactivity** : To our knowledge, the product does not present any particular risk
- 10.2. Chemical stability** : Stable at ambient temperature and under normal conditions of use
- 10.3. Possibility of hazardous reactions** : None under normal conditions.
- 10.4. Conditions to avoid** : May decompose :
- on heating
- 10.5. Incompatible materials** : - strong oxidizing agents
- 10.6. Hazardous decomposition products** : On combustion or on thermal decomposition (pyrolysis) releases :
Carbon oxides (CO, CO₂)
Hydrogen fluoride , Hydrochloric acid

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

- Acute toxicity** : Harmful by inhalation and if swallowed
LC 50 inhalation / 4h (rat) : > 4.94 mg/l
LD 50 skin (Rabbit) : > 2000 mg/kg
LD 50 oral (rat) : 520 mg/kg
(results based on a similar formulation)
Harmful : May cause lung damage if swallowed
- Local effects** : Irritating to the respiratory system
(results based on a similar formulation)
- Skin corrosion/irritation** : Based on available data, the classification criteria are not met.
- Serious eye damage/irritation** : Irritating to eyes
(results based on a similar formulation)
- Respiratory or skin sensitization** : Does not cause sensitisation
(results based on a similar formulation)
Contains however a substance (Bifenthrin) which may cause sensitization by skin contact.
- Repeated dose toxicity** : Repeated exposure may cause skin dryness or cracking
- Carcinogenicity** : No additional information available
- Mutagenicity** : No additional information available
- Reproductive toxicity** : No additional information available

SECTION 12 ECOLOGICAL INFORMATION

- 12.1. Toxicity** : Product as is :
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Bifenthrin :
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
LC 50 (Fish : *Salmo gairdneri*) / 96 h : 0.10 µg/l
LC 50 (Fish : *Lepomis macrochirus*) / 96 h : 0.26 µg/l
EC 50 (Daphnia : *Daphnia magna*) / 48h : 0.11 µg/l
LD50(birds) : 1800 - 2150 mg/kg



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SECTION 12 ECOLOGICAL INFORMATION (continued)

- 12.2. Persistence and degradability** : Bifenthrin :
Half-life (in soil) : 67-174 d
Solvent naphtha (petroleum), light arom. : Easy biodegradable
- 12.3. Bioaccumulative potential** : Bifenthrin :
log Pow : 6.6
BCF : 1709
Bioaccumulable
- 12.4. Mobility in soil** : Bifenthrin : Ultimate destination of the product : soil and sediment.
- 12.5. Results of PBT and vPvB assessment** : No information available
- 12.6. Other adverse effects** : No information available

SECTION 13 DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

WASTE FROM PRODUCT

Prohibition : Discharging waste into rivers and drains is prohibited

Destruction/Disposal : Dispose of in accordance with relevant local regulations

CONTAMINATED PACKAGING

Decontamination/cleaning : Beware of residues or vapours which remain in the drums

Destruction/disposal : Recycle following cleaning or dispose of at an authorised site

SECTION 14 TRANSPORT INFORMATION

- 14.1. UN number** : 1993
- 14.2. UN proper shipping name** : FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom.)
- 14.3. Transport hazard class(es)** : 3
- 14.4. Packing group** : III
- 14.5. Environmental hazards** : Additional marking : "Environmentally hazardous substance"
- 14.6. Special precautions for user** : No information available
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** : No information available

SECTION 15 REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture** : No information available
- 15.2. Chemical Safety Assessment** : A chemical safety assessment acc. to art. 14 of Regulation (EC) No 1907/2006 is not required, because art. 15 of the same regulation applies



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SECTION 16 OTHER INFORMATION

R phrases text of § 2&3

: R10 : Flammable.
R23/25 : Toxic by inhalation and if swallowed.
R36/38 : Irritating to eyes and skin.
R37 : Irritating to respiratory system.
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.
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 : Harmful : may cause lung damage if swallowed.
R66 : Repeated exposure may cause skin dryness or cracking.
R67 : Vapours may cause drowsiness and dizziness.

H phrases text of § 2&3

: EUH066 : Repeated exposure may cause skin dryness or cracking.
H226 : Flammable liquid and vapour
H301 : Toxic if swallowed
H304 : May be fatal if swallowed and enters airways
H315 : Causes skin irritation
H317 : May cause an allergic skin reaction
H318 : Causes serious eye damage
H319 : Causes serious eye irritation
H331 : Toxic if inhaled
H335 : May cause respiratory irritation
H336 : May cause drowsiness or dizziness
H400 : Very toxic to aquatic life
H410 : Very toxic to aquatic life with long lasting effects
H411 : Toxic to aquatic life with long lasting effects

* Update :

: This sheet was updated (refer to the date at the top of this page)
This sheet has been revised completely (changes were not marked)

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This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risk incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. The user alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfill his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

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