

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Toremifene citrate salt

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Acute toxicity, Oral (Category 4)

Serious eye damage (Category 1)

Acute aquatic toxicity (Category 1)

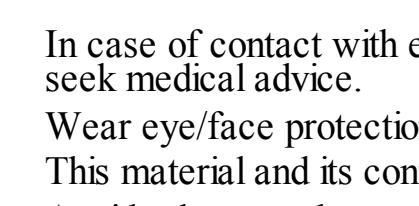
Chronic aquatic toxicity (Category 1)

According to European Directive 67/548/EEC as amended.

Harmful if swallowed. Risk of serious damage to eyes. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

Harmful if swallowed.

H302

Causes serious eye damage.

H318

Very toxic to aquatic life with long lasting effects.

H410

Precautionary statement(s)

Avoid release to the environment.

P273

Dispose of contents/ container to an approved waste disposal plant.

P501

Hazard symbol(s)

Harmful

Xn

Dangerous for the environment

N

R-phrase(s)

Harmful if swallowed.

R22

Risk of serious damage to eyes.

R41

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

R50/53

S-phrase(s)

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S26

Wear eye/face protection.

S39

This material and its container must be disposed of as hazardous waste.

S60

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

S61

Other hazards - none

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

: 2-(para-((Z)-4-Chloro-1,2-diphenyl-1-butenyl)phenoxy)-N,N-dimethyl-

dimethylaminine

Ethanamine, 2-(4-(4-chloro-1,2-diphenyl-1-butenyl)phenoxy)-N,N-dimethyl-

,(Z)-

Toremifene

Z-Toremifene

Acapodene

Fareston

GTx 006

Formula

: C32H36ClNO7

Molecular Weight

: 598,08 g/mol

CAS-No.

EC-No.

Classification

Concentration

2-(para-((Z)-4-Chloro-1,2-diphenyl-1-butene)phenoxy)-N,N-dimethylthylamine

89778-27-8

Acute Tox. 4; Eye Dam. 1;

Aquatic Acute 1; Aquatic

Chronic 1; H302, H318, H410

Xn, N, R22 - R41 - R50/53

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 4. FIRST AID MEASURES

### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Conditions for safe storage

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

Store with desiccant.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

#### Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

#### Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form solid

### Safety data

pH no data available

Melting point no data available

Boiling point no data available

Flash point no data available

Ignition temperature no data available

Lower explosion limit no data available

Upper explosion limit no data available

Water solubility no data available

Partition coefficient: log Pow: 6,009

n-octanol/water

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

LD50 Oral - rat - 1.700 mg/kg

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

Genotoxicity in vivo - Human

Micronucleus test

Genotoxicity in vivo - Human

### Cytogenetic analysis

Cytogenetic in vivo - Human

Genotoxicity in vivo - Human

SLN

Genotoxicity in vivo - rat - Oral

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as

probable, possible or confirmed human carcinogen by IARC.

### Reproductive toxicity

no data available

### Specific target organ toxicity - single exposure

no data available

### Specific target organ toxicity - repeated exposure

no data available

### Aspiration hazard

no data available

### Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed. May cause skin irritation.

Eyes Causes eye burns. May be harmful if absorbed through skin. May cause skin irritation.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Additional Information