

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Revision date 28-Feb-2023

Revision Number 1

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product Name** BARAK  
**Product Code(s)** TP.2002.F.1\_\_\_ISR  
**Chemical name** Chlorothalonil 720 SC  
**Pure substance/mixture** Mixture

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

**Recommended use** Fungicide; For professional users only  
**Uses advised against** No information available

### 1.3. Details of the supplier of the safety data sheet

Tapazol Chemical Works Ltd.  
1st HaSolela st.  
West. Ind. Zone  
Beit Shemesh, Israel 9905415  
Tel:+972-2-992-6040  
Fax: +972-2-9926050  
For further information, please contact [sds@tapazol.co.il](mailto:sds@tapazol.co.il)

### 1.4. Emergency telephone number

**Emergency Telephone** +972 4 777 1900  
National Institute for Information on Poisoning  
Rambam Health Care Campus, Haifa, Israel

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 3 - (H331)
<b>Serious eye damage/eye irritation</b>	Category 2 - (H319)
<b>Skin sensitization</b>	Category 1 - (H317)
<b>Carcinogenicity</b>	Category 2 - (H351)
<b>Specific target organ toxicity (single exposure)</b>	Category 3 - (H335)
<b>Acute aquatic toxicity</b>	Category 1 - (H400)
<b>Chronic aquatic toxicity</b>	Category 1 - (H410)

### 2.2. Label elements

Contains Chlorothalonil (ISO)

**Signal word**

Danger

**Hazard statements**

H317 - May cause an allergic skin reaction  
 H319 - Causes serious eye irritation  
 H331 - Toxic if inhaled  
 H335 - May cause respiratory irritation  
 H351 - Suspected of causing cancer  
 H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements - EU (§28, 1272/2008)**

P102 - Keep out of reach of children  
 P201 - Obtain special instructions before use  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P273 - Avoid release to the environment  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P310 - Immediately call a POISON CENTER or doctor  
 P391 - Collect spillage  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Additional information**

SP1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

**2.3. Other hazards****SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Chlorothalonil (ISO)	217-588-1	1897-45-6	52-59	Acute Tox. 2 (H330) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Carc. 2 (H351) STOT SE 3 (H335) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) M=10
Poly(oxy-1,2-ethanediyl), .alpha.-	619-457-8	99734-09-5	0.5-2	Aquatic Chronic 3 (H412)

[tris(1-phenylethyl)phenyl]-.ome ga.- hydroxy				
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**Full text of H- and EUH-phrases: see section 16**

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.
<b>Eye contact</b>	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Do not breathe vapor or mist. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

### 4.2. Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Coughing and/ or wheezing. Difficulty in breathing. Burning sensation. Itching. Rashes. Hives.
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	May cause sensitization in susceptible persons. Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Small Fire</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Large Fire</b>	Water spray, fog or regular foam Dike fire-control water for later disposal Move containers from fire area if you can do it without risk

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**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

### **5.2. Special hazards arising from the substance or mixture**

**Specific hazards arising from the chemical** Product is or contains a sensitizer. May cause sensitization by skin contact.

### **5.3. Advice for firefighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

### **6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

### **7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**7.3. Specific end use(s)**

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure Limits**

Chemical name	European Union	Austria	Belgium	Netherlands	Bulgaria
Chlorothalonil (ISO) 1897-45-6	-	Skin sensitizer	-	-	-

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**8.2. Exposure controls****Personal protective equipment****Eye/face protection**

Tight sealing safety goggles.

**Hand protection**

Wear suitable gloves.

**Skin and body protection**

Wear suitable protective clothing.

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**General hygiene considerations**

Avoid contact with skin, eyes or clothing. Do not breathe vapor or mist. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Viscous
<b>Physical state</b>	Liquid
<b>Color</b>	Off- white

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	5.5 - 7.5	
pH (as aqueous solution)		
Melting point / freezing point		
Boiling point / boiling range		
Flash point	No data available.	

Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Flammability Limit in Air	
Upper flammability or explosive limits	No data available.
Lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	1.2 - 1.4
Water solubility	Dispersible
Solubility(ies)	No data available.
Partition coefficient	No data available.
Autoignition temperature	No data available.
Decomposition temperature	
Kinematic viscosity	No data available.
Dynamic viscosity	No data available.

## 9.2. Other information

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

### 10.2. Chemical stability

**Stability** Stable under normal conditions.

#### Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

### 10.4. Conditions to avoid

**Conditions to avoid** Excessive heat.

### 10.5. Incompatible materials

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Oral LD50** >2000 mg/kg. Based on available data, the classification criteria are not met.

**Dermal LD50** > 2000 mg/kg. Based on available data, the classification criteria are not met.

**Inhalation LC50** 0.6261 mg/l air 4 h. H331 - Toxic if inhaled Classification based on test data.

**Skin corrosion/irritation** Non-irritating to the skin. Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** H319 - Causes serious eye irritation. Classification based on test data.

**Respiratory or skin sensitization** H317 - May cause an allergic skin reaction. Classification based on test data.

**Germ cell mutagenicity** Not classified. Based on calculation method classification criteria are not met.

Chemical name	European Union
Chlorothalonil (ISO)	Not classified

**Carcinogenicity** Carc. 2 - H351. Classification based on calculation method.

Chemical name	European Union
Chlorothalonil (ISO)	Carc. 2 (H351)

**Reproductive toxicity** Not classified. Based on calculation method classification criteria are not met.

Chemical name	European Union
Chlorothalonil (ISO)	Not classified

**STOT - single exposure** H335 - May cause respiratory irritation. Classification based on calculation method.

**STOT - repeated exposure** Not classified. Based on calculation method classification criteria are not met.

**Aspiration hazard** Not classified. Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity** H400 - Very toxic to aquatic life.  
Classification based on calculation method.  
H410 - Very toxic to aquatic life with long lasting effects.  
Classification based on calculation method.  
Low toxicity to honeybees.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Chlorothalonil (ISO)	Acute toxicity: EC50 = 0.013 mg/l; Chronic toxicity: NOEC = 0.033 mg/l	Acute toxicity: LC50 = 0.017 mg/l; Chronic toxicity: NOEC = 0.0014 mg/l	-	Acute toxicity: EC50 = 0.054 mg/l; Chronic toxicity: NOEC = 0.009 mg/l

### 12.2. Persistence and degradability

**Persistence and degradability** Chlorothalonil tends not to be persistent in soil systems but may be persistent in water. Chlorothalonil is not readily biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulation** Concern about bioaccumulation potential [Chlorothalonil].

**Bioconcentration factor (BCF)** 100 L/Kg

#### Component Information

Chemical name	Partition coefficient
Chlorothalonil (ISO)	Log Pow = 2.94 (pH 7, 20 °C)

### 12.4. Mobility in soil

**Mobility in soil** Chlorothalonil is slightly mobile.

**12.5. Results of PBT and vPvB assessment**

**PBT and vPvB assessment**                      The components in formulation do not meet the criteria for classification as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Chlorothalonil (ISO)	The substance is not PBT / vPvB
Poly(oxy-1,2-ethanediyl), .alpha.- [tris(1-phenylethyl)phenyl]-.omega.-hydroxy	The substance is not PBT / vPvB

**12.6. Other adverse effects**

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Waste from residues/unused products**                      Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**                      Do not reuse empty containers.

**SECTION 14: Transport information**

**IMDG**

14.1 UN number                                      2902

14.2 UN proper shipping name                      Pesticide, liquid, toxic, n.o.s. [Chlorothalonil]

14.3 Transport hazard class(es)                      6.1

14.4 Packing group                                      III

14.5 Marine pollutant                                      Yes

    Environmental hazards                                      Yes

14.6 Special precautions for user                      None

    Special Provisions

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**RID**

14.1 UN number                                      2902

14.2 UN proper shipping name                      Pesticide, liquid, toxic, n.o.s. [Chlorothalonil]

14.3 Transport hazard class(es)                      6.1

14.4 Packing group                                      III

14.5 Environmental hazards                                      Yes

14.6 Special precautions for user                      None

    Special Provisions

**ADR**

14.1 UN number                                      2902

14.2 UN proper shipping name                      Pesticide, liquid, toxic, n.o.s. [Chlorothalonil]

14.3 Transport hazard class(es)                      6.1

14.4 Packing group                                      III

14.5 Environmental hazards                                      Yes

14.6 Special precautions for user                      None

    Special Provisions

**IATA**

14.1 UN number                                      2902

14.2 UN proper shipping name                      Pesticide, liquid, toxic, n.o.s. [Chlorothalonil]

14.3 Transport hazard class(es)                      6.1

14.4 Packing group                                      III

14.5 Environmental hazards                                      Yes



14.6 Special precautions for user  
Special Provisions None

## SECTION 15: Regulatory information

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

#### National regulations

##### France

Occupational Illnesses (R-463-3, France)

##### Germany

Water hazard class (WGK) strongly hazardous to water (WGK 3)

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### Persistent Organic Pollutants

Not applicable

#### Dangerous substance category per Seveso Directive (2012/18/EU)

H2 - ACUTE TOXIC

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

#### International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AICS	Contact supplier for inventory compliance status

#### Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
 ENCS - Japan Existing and New Chemical Substances  
 IECSC - China Inventory of Existing Chemical Substances  
 KECL - Korean Existing and Evaluated Chemical Substances  
 PICCS - Philippines Inventory of Chemicals and Chemical Substances  
 AICS - Australian Inventory of Chemical Substances

### 15.2. Chemical safety assessment

## SECTION 16: Other information

### Key or legend to abbreviations and acronyms used in the safety data sheet

**Full text of H-Statements referred to under section 3**

H301 - Toxic if swallowed  
 H302 - Harmful if swallowed  
 H311 - Toxic in contact with skin  
 H314 - Causes severe skin burns and eye damage  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H330 - Fatal if inhaled  
 H335 - May cause respiratory irritation  
 H351 - Suspected of causing cancer  
 H400 - Very toxic to aquatic life  
 H410 - Very toxic to aquatic life with long lasting effects  
 H412 - Harmful to aquatic life with long lasting effects

**Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Classification procedure**

H317 - Classification based on test data  
 H319 - Classification based on test data  
 H331 - Classification based on test data  
 H335 - Classification based on calculation method  
 H351 - Classification based on calculation method  
 H400 - Classification based on calculation method  
 H410 - Classification based on calculation method

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

**Revision date** 28-Feb-2023

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other**

materials or in any process, unless specified in the text.

**End of Safety Data Sheet**