

# 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 24-Jan-2023

Revision Number 2

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

### 1.1. Product identifier

**Product Name** BARKOD  
**Product Code(s)** TP.2003.F.1\_\_\_ISR  
**Chemical name** Chlorothalonil 400 Dimethomorph 80 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

#### Manufacturer

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>Serious eye damage/eye irritation</b>	Category 2 - (H319)
<b>Skin sensitization</b>	Category 1 - (H317)
<b>Carcinogenicity</b>	Category 2 - (H351)
<b>Reproductive toxicity</b>	Category 1B - (H360F)
<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), Dimethomorph (ISO)

**Signal word**

Danger

**Hazard statements**

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H351 - Suspected of causing cancer

H360F - May damage fertility

H410 - Very toxic to aquatic life with long lasting effects

EUH208 - Contains ( [2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol] ). May produce an allergic reaction

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

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

P102 - Keep out of reach of children

P201 - Obtain special instructions before use

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P302 + P352 - IF ON SKIN: Wash with plenty of water/...

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

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P337 + P313 - If eye irritation persists: Get medical advice/attention

P362 + P364 - Take off contaminated clothing and wash it before reuse

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

**Additional information**

This product requires child resistant fastenings if supplied to the general public.

This product requires tactile warnings if supplied to the general public.

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**

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Group III Chemical	-

**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	31-35	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
Dimethomorph (ISO)	404-200-2	110488-70-5	5-8	Repr. 1B (H360F) Aquatic Chronic 2 (H411)
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	225-208-0	4719-04-4	<0.1	Acute Tox. 4 (H302) Skin Sens. 1 (H317) SCL ≥ 0,1 %

**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. IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	If breathing has stopped, give artificial respiration. Get medical attention immediately. 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. Remove to fresh air. 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>	Call a physician or poison control center immediately. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.
<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. Prolonged contact may cause redness and irritation.
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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**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Small Fire** Dry chemical, CO<sub>2</sub>, water spray or regular foam.  
**Large Fire** 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

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

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

**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** Do not breathe vapor or mist. 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. Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice. In case of

insufficient ventilation, wear suitable respiratory equipment.

**General hygiene considerations** Do not breathe vapor or mist. 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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. 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** Do not breathe vapor or mist. 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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. 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**

Physical state                      Liquid  
 Color                                      Off- white

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.5 - 7.5	
pH (as aqueous solution)		
Melting point / freezing point		
Boiling point / boiling range	>100 °C	
Flash point	>100 °C	
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	1.0 - 1.3	
Water solubility	Forms a suspension	
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

<b>Oral LD50</b>	2500 mg/kg. Based on available data, the classification criteria are not met.
<b>Dermal LD50</b>	>2000 mg/kg. Based on available data, the classification criteria are not met.
<b>Inhalation LC50</b>	>2.13 mg/l air 4 h. Based on available data, the classification criteria are not met.
<b>Skin corrosion/irritation</b>	Non-irritating to the skin. Based on available data, the classification criteria are not met.
<b>Serious eye damage/eye irritation</b>	Eye Irrit. 2 - (H319). Irritating to eyes. Classification based on test data.
<b>Respiratory or skin sensitization</b>	Skin Sens. 1 (H317). Skin sensitizer. Classification based on test data.
<b>Germ cell mutagenicity</b>	Not classified. Based on calculation method classification criteria are not met.

Chemical name	European Union
Chlorothalonil (ISO)	Not classified
Dimethomorph (ISO)	Not classified

**Carcinogenicity** H351 - Suspected of causing cancer. Classification based on calculation method.

Chemical name	European Union
Chlorothalonil (ISO)	Carc. 2 (H351)
Dimethomorph (ISO)	Not classified

**Reproductive toxicity** H360F - May damage fertility. Classification based on calculation method.

Chemical name	European Union
Chlorothalonil (ISO)	Not classified
Dimethomorph (ISO)	Repr. 1B (H360F)

**STOT - single exposure** Cat 3 (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 calculation method 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.  
Non-toxic 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
Dimethomorph (ISO)	Acute toxicity: EC50 = 29.2 mg/l Chronic toxicity: NOEC = 9.8 mg/l	Acute toxicity: LC50 = 6.1 mg/l Chronic toxicity: NOEC = 0.056 mg/l	-	Acute toxicity: EC50 = 0.22 mg/l Chronic toxicity: NOEC = 12 mg/l

**12.2. Persistence and degradability**

**Persistence and degradability** Very low to moderate persistence [Chlorothalonil].  
Moderately persistent [Dimethomorph].

**12.3. Bioaccumulative potential**

**Bioaccumulation** Bioaccumulation is not expected [Chlorothalonil].  
Low potential for bioaccumulation. [Dimethomorph].

**Bioconcentration factor (BCF)** No data available

**Component Information**

Chemical name	Partition coefficient
Chlorothalonil (ISO)	Log Pow = 2.94 (pH 7, 20 °C)
Dimethomorph (ISO)	Log P = 2.68 (pH 7, 20 °C)

**12.4. Mobility in soil**

**Mobility in soil** Medium mobility to immobile [Chlorothalonil].  
Low to medium mobility in soil [Dimethomorph].

**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
Dimethomorph (ISO)	The substance is not PBT / vPvB
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	The substance is not PBT / vPvB

**12.6. Other adverse effects**

Chemical name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disrupters - Evaluated Substances
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	Group III Chemical	-

**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** 3082  
**14.2 UN proper shipping name** Environmentally hazardous substance, liquid, n.o.s. [Chlorothalonil]  
**14.3 Transport hazard class(es)** 9  
**14.4 Packing group** III  
**14.5 Marine pollutant** Yes  
**Environmental hazards** Yes  
**14.6 Special precautions for user**  
**Special Provisions** None  
**14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**



**RID**

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Chlorothalonil]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

**ADR**

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Chlorothalonil]
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environmental hazards	Yes
14.6 Special precautions for user	
Special Provisions	None

**IATA**

14.1 UN number	3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. [Chlorothalonil]
14.3 Transport hazard class(es)	9
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/NDL**

Contact supplier for inventory compliance status

**EINECS/ELINCS**

Contact supplier for inventory compliance status

<b>ENCS</b>	Contact supplier for inventory compliance status
<b>IECSC</b>	Contact supplier for inventory compliance status
<b>KECL</b>	Contact supplier for inventory compliance status
<b>PICCS</b>	Contact supplier for inventory compliance status
<b>AICS</b>	Contact supplier for inventory compliance status

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - 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**

H302 - Harmful if swallowed  
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  
H360F - May damage fertility  
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

**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  
H335 - Classification based on calculation method  
H351 - Classification based on calculation method  
H360F - 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** 24-Jan-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**