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 13-Oct-2022 **Revision Number** 1

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

1.1. Product identifier

Product Name **TWIST**

Product Code(s) TP.2042.F.1___ISR

Chemical name Fludioxonil 75 Pyrimethanil 325 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

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

Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Contains FLUDIOXONIL

Signal word
Warning

Hazard statements
H410 - Very toxic to aquatic life with long lasting effects
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use
EUH208 - Contains (2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol AND 2-methylisothiazol-3(2H)-one). May produce an allergic reaction

Precautionary Statements - EU (§28, 1272/2008)
P102 - Keep out of reach of children
P273 - Avoid release to the environment
P391 - Collect spillage
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

Endocrine Disruptor Information

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 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]
Pyrimethanil	414-220-3	53112-28-0	28-32	Aquatic Chronic 2 (H411)
Fludioxonil (ISO)	-	131341-86-1	5-9	Aquatic Acute 1 (H400) M=1 Aquatic Chronic 1 (H410) M=10
2,2',2''-(hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	225-208-0	4719-04-4	<1	Acute Tox. 4 (H302) Skin Sens. 1 (H317) SCL ≥ 0,1 %
2-methylisothiazol-3(2H)-one	220-239-6	2682-20-4	<0.01	Acute tox.3 (H301) Acute tox.3 (H311) Skin Corr. 1B (H314) Eye Dam.1 (H318) Skin Sens. 1A (H317) SCL ≥ 0,0015 % Acute Tox. 2 (H330) Aquatic Acute 1 (H400) M=10 Aquatic Chronic 1 (H410) M=1
Quarz (SiO2), respirable particles	238-878-4	14808-60-7	<0.01	STOT RE (Lung) 1 (H372)

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No.

1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

Ingestion Clean mouth with water and drink afterwards plenty of water.

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

Symptoms Itching. Rashes. Hives.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

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, CO2, 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 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

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. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

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
2-methylisothiazol-3(2H)-one 2682-20-4	-	TWA: 0.05 mg/m³ Skin sensitizer	-	-	-
Quarz (SiO2), respirable particles 14808-60-7	TWA: 0.1 mg/m³	TWA: 0.15 mg/m³	TWA: 0.1 mg/m³	TWA: 0.075 mg/m³	TWA: 0.1 mg/m³

Chemical name	Denmark	Germany	France	United Kingdom	Spain
Quarz (SiO2), respirable particles 14808-60-7	TWA: 0.3 mg/m³ TWA: 0.1 mg/m³	-	TWA: 0.1 mg/m³	TWA: 0.1 mg/m³	TWA: 0.05 mg/m³

Biological occupational exposure limits

Chemical name	European Union	Austria	Bulgaria	Croatia	Czech Republic
Quarz (SiO2), respirable particles 14808-60-7	-	(-)	-	-	-

Chemical name	Latvia	Luxembourg	Romania	Slovakia
Fludioxonil (ISO) 131341-86-1	-	-	5 mg/g Creatinine - urine (Fluorine) - end of shift	-

8.2. Exposure controls

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Color Off- white

Property	Values	Remarks • Method
pH	6 - 7.6	
pH (as aqueous solution)		
Melting point / freezing point		
Boiling point / boiling range		
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 - 1.14	
Water solubility	Forms a suspension	
Solubility(ies)	No data available.	
Partition coefficient	No data available.	
Autoignition temperature	No data available.	
Decomposition temperature		
Kinematic viscosity	747 - 1121 mm²/s	
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 None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

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 5000 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 > 5.215 mg/l air 4 h. Based on available data, the classification criteria are not met.

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

Serious eye damage/eye irritation Non-irritating to the eyes. Based on available data, the classification criteria are not met.

Respiratory or skin sensitization Not a skin sensitizer. Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Chemical name	European Union
Pyrimethanil	Not classified
Fludioxonil (ISO)	Not classified

Carcinogenicity

Chemical name	European Union
Pyrimethanil	Not classified
Fludioxonil (ISO)	Not classified

Reproductive toxicity

Chemical name	European Union
Pyrimethanil	Not classified
Fludioxonil (ISO)	Not classified

STOT - single exposure Not classified. (Based on calculation method classification criteria are not met).

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 H410 - Very toxic to aquatic life with long lasting effects. Classification based on calculation method.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Pyrimethanil	Acute toxicity: EC50 = 7.8 mg/l; Chronic toxicity NOEC = 1.2 mg/l	Acute toxicity: LC50 = 10.56 mg/l; Chronic toxicity NOEC = 1.6 mg/l	-	Acute toxicity: EC50 = 2.9 mg/l; Chronic toxicity NOEC = 0.94 mg/l
Fludioxonil (ISO)	Acute toxicity: LC50 = 0.21 mg/l; Chronic toxicity NOEC = 0.027 mg/l	Acute toxicity: LC50 = 0.23 mg/l; Chronic toxicity NOEC = 0.039 mg/l	-	Acute toxicity: LC50 = 0.4 mg/l; Chronic toxicity NOEC = 0.005 mg/l

12.2. Persistence and degradability

Persistence and degradability Not considered readily biodegradable. [Fludioxonil]. Moderately persistent [Pyrimethanil].

12.3. Bioaccumulative potential

Bioaccumulation Low potential for bioaccumulation [Fludioxonil]. Low potential for bioaccumulation [Pyrimethanil].

Bioconcentration factor (BCF) 366 L/kg (The whole fish) [Fludioxonil];

Component Information

Chemical name	Partition coefficient
Pyrimethanil	Log P = 2.84 (pH 7, 20 °C)
Fludioxonil (ISO)	Log P = 4.12 (pH 7, 20 °C)

12.4. Mobility in soil

Mobility in soil Non-mobile in soil [Fludioxonil]. Moderately mobile in soil [Pyrimethanil].

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
Pyrimethanil	The substance is not PBT / vPvB
Fludioxonil (ISO)	The substance is not PBT / vPvB
2-methylisothiazol-3(2H)-one	The substance is not PBT / vPvB

12.6. Other adverse effects

Endocrine Disruptor Information

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. [Fludioxonil]
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. [Fludioxonil]
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. [Fludioxonil]
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. [Fludioxonil]
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)

Chemical name	French RG number	Title
Quarz (SiO2), respirable particles 14808-60-7	RG 25	-

Germany

Water hazard class (WGK) Obviously hazardous to water (WGK 2)

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)

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

H372 - Causes damage to organs through prolonged or repeated exposure
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
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 13-Oct-2022

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