SAFETY DATA SHEET

Issue date: 29/06/2015

1. Identification of the substance or mixture and of the supplier

Product:	Potassium phosphonates (phosphites) + chlorothalonil SC
Product name:	Bugy 62.5 SC, Cosmos, Cosmos SC 62.5, Feniks 62.5 SC, LBG-31FCL
Recommended use:	Fungicide
Supplier:	Luxembourg Industries Ltd. 27 Hamered St., Tel Aviv, 6812509 ISRAEL
Emergency phone number:	+972 3 796 4300

2. Hazards identification

Classification of the product according to the Global Harmonized System of Classification and Labelling of Chemicals (GHS).

Hazard classification:

Carcinogenicity	Category 2
Eye damage/irritation	Category 2B
Sensitization-Skin	Category 1
Hazardous to the aquatic environment	
Acute hazard	Category 1
Long term hazard	Category 1

Label elements:

Pictograms: 

Signal word: Warning

Hazard statement(s):

H351	Suspected of causing cancer.
H317	May cause an allergic skin reaction.
H320	Causes eye irritation.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention:	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P261	Avoid breathing mist/spray.
	P264	Wash hands and exposed skin thoroughly after handling.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P280	Wear protective gloves.
	P273	Avoid release to the environment.

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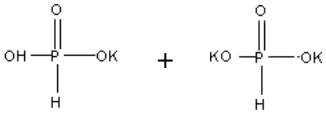
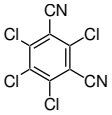
Response:	P308+P313	If exposed or concerned: Get medical advice/attention.
	P302+P352	IF ON SKIN: Wash with plenty of soap and water.
	P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337+P313	If eye irritation persists: Get medical advice/attention.
	P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
	P362+P364	Take off contaminated clothing and wash it before reuse.
	P391	Collect spillage.
Storage:	P405	Store locked up.
Disposal:	P501	Dispose of contents/container in accordance with national/ international regulations.

Other hazards: Not known

3. Information on ingredients contributing to hazard

Chemical name of the a.i.:	Potassium salts of phosphonic (phosphorous) acid	Tetrachloroisophthalonitrile
Common name of the a.i.:	Potassium phosphite	Chlorothalonil
Chemical formula:	K_2HPO_3 + KH_2PO_3	$C_8Cl_4N_2$
Structural formula:		
CAS No.:	13598-36-2	
	13977-65-6 + 13492-26-7	1897-45-6
Content:	375 g/L (phosphorous acid equivalent)	250 g/L

4. First-aid measures

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Most important symptoms and effects, both acute and delayed.

Chlorothalonil was reported to cause irritation of skin and mucous membranes of the eye and respiratory tract on contact. Cases of allergic contact dermatitis have been reported. Occupational exposure to chlorothalonil was reported to induce asthma symptoms, which resolved cessation of exposure. No cases of systemic poisoning in humans have been reported in the published medical literature.

Indication of any immediate medical attention and special treatment needed.

There is not specific antidote. Treat symptomatically.

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5. Fire-fighting measures

Suitable extinguishing media:	Dry chemical, CO_2, alcohol-resistant foam or water spray. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal; do not scatter the material.
Specific hazards arising from the chemical:	The product is not combustible. The substance itself does not burn but may decompose upon heating to produce irritating and possibly toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.
Special protective equipment and precautions for fire-fighters:	Wear chemical protective clothing and self-contained breathing apparatus (SCBA) with positive pressure.

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6. Accidental release measures

Personal precautions, protective equipment:	Use personal protective equipment. Avoid breathing mist/vapours. Ensure adequate ventilation.
Environmental precautions:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up:	Stop leak. Contain product with an inert diking material. Vacuum up as much as possible. Place reclaimed product in a closed and properly labeled waste drum. Store drum in separate area until proper disposal. Wash thoroughly after handling.

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7. Handling and storage

Precautions for safe handling:	Wear suitable protective clothing. Avoid contact with skin and eyes. Do not breathe mist/vapours. Ensure adequate ventilation. Wash hands and exposed skin thoroughly after handling.

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Conditions for safe storage, including any incompatibilities:	Store locked up. Store in a cool place. Keep container tightly closed in a dry and well ventilated place.

8. Exposure controls / personal protection

Occupational exposure limits:	Chlorothalonil: TLV (ACGIH): Not established TWA (8 hr): 0.1 mg/m^3
Appropriate engineering controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations low. Ensure that eyewash stations and safety showers are in proximity to the work-station location.
Personal protective equipment:	Long sleeve shirt, long pants, boots, chemical resistant gloves, dust or mist respirator, and protective eyewear.

9. Physical and chemical properties

Appearance:	Off with to light brown, liquid
Odour:	Characteristic odor
pH:	6.0-7.0
Melting point/freezing point:	Not available
Boiling point:	Not available
Evaporation rate:	Not available
Flash point:	> 100ºC
Flammability:	Not flammable
Vapour pressure (25°C):	Not available
Vapour density:	Not available
Bulk density (20°C):	1.5-1.6 g/mL
Solubility in water (20°C):	Suspension
Partitition coefficient n-octanol/water (25°C):	Chlorothalonil Kow logP = 2.92 Potassium phosphite Not applicable
Ignition temperature:	Not applicable
Decomposition temperature:	Not available
Viscosity (20°C):	370 Cp, 3.70 poise

10. Stability and reactivity

Reactivity:	Not corrosive to aluminum, copper and polyethylene. Slightly corrosive to zinc.
Chemical stability:	Stable under normal temperatures and pressure.
Possibility of hazardous reactions:	Not available.
Conditions to avoid:	Not available.

Incompatible materials:	The product is incompatible with strong acids, strong bases and oxidizing materials.
Hazardous decomposition products:	Not available.

11. Toxicological information

Acute toxicity

Oral LD_{50} (rat, female):	>5000 mg/kg
Dermal LD_{50} (rabbit):	>5000 mg/kg
Inhalation (rat):	>5.09 mg/L
Skin corrosion/irritation	
Skin irritation (rabbit):	Slightly irritant
Serious eye damage/irritation	
Eye irritation (rabbit):	Mildly irritant
Respiratory or skin sensitization	Skin sensitizer
Germ cell mutagenicity:	Not available
Carcinogenicity:	Chlorothalonil: Limited evidence for carcinogenicity from animal's studies. Classified by IARC in group 2B, possibly carcinogenic to humans. PP: No carcinogenic potential
Reproductive toxicity:	Not available
STOT* single exposure:	Not available
STOT repeated exposure:	Not available
Aspiration hazard:	Not available

12. Ecological information

Ecotoxicity:

Birds LD_{50}:	
Quail, *Coturnix Japonica*:	>2000 mg/Kg
Fish LC_{50} (96 h):	
Poecilia reticulata:	0.307 mg/L
Bees LD_{50} (48 h, oral):	
Apis mellifera	>100 µg/bee
Persistence and degradability:	Chlorothalonil: Readily biodegradable PP: Not readily biodegradable
Bioaccumulative potential:	Chlorothalonil: No bio-accumulative potential PP: Not available
Mobility in soil:	Chlorothalonil: Low mobility to immobile. PP: Low mobility
Other adverse effects:	Not available

*Specific Target Organ Toxicity

13. Disposal considerations

Dispose of in accordance with local regulations.

14. Transport information

UN No.:	3082
Proper shipping name:	Environmentally hazardous substance, Liquid, N.O.S. (chlorothalonil)
Transport hazard class:	9
Packaging group:	III
Marine pollutant:	Yes

15. Regulatory information

This data sheet complies with the requirements of the Global Harmonized System of Classification and Labelling of chemicals (GHS).

16. Other information

The information contained herein is applicable solely to the indicated product, and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein.

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