

This safety data sheet complies with the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

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Revision Number 1
ENG

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s) LK3-CB100302-5PCK
Product Name Pesticide Mix, 19 Compounds 100 mg/L, 5 x 1 ml
CAS No. Not applicable

Contains Methylene chloride

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

Recommended Use Laboratory chemicals
Production of chemical substance

Uses advised against Not for human consumption

1.3. Details of the supplier of the safety data sheet

Manufacturer
LabKings B.V
Utrechtseweg 5, 1213TK Hilversum, The Netherlands
+31 84 875 63 44
www.labkings.com

1.4. Emergency telephone number

Emergency Telephone Chemtrec, Inside the USA: 1-800-424-9300
Chemtrec, Outside the USA: 001-703-527-3887

Europe	112
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Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Carcinogenicity	Category 2 - (H351)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements

Regulation (EC) No 1272/2008
Contains Methylene chloride



Signal word
Warning

Hazard statements

H315 - Causes skin irritation
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer
H410 - Very toxic to aquatic life with long lasting effects
May cause respiratory irritation. May cause drowsiness or dizziness

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

P321 - Specific treatment (see supplemental instructions on the administration of antidotes on this label)
P280 - Wear protective gloves/protective clothing/eye protection/face protection

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

The exact concentration of each component can be found on the Certificate of Analysis

Chemical name	CAS No.	Molecular weight (g/mol)	Weight-%
Methylene chloride	75-09-2	84.93	99.81
tetrachlorvinphos (ISO)	22248-79-9	365.96	0.01
terbufos	13071-79-9	288.43	0.01
pirimiphos methyl	29232-93-7	305.33	0.01
phosalone	2310-17-0	367.80	0.01
parathion	56-38-2	291.26	0.01
molinate	2212-67-1	187.30	0.01
methyl parathion	298-00-0	263.20	0.01
methidathion	950-37-8	302.33	0.01
malathion	121-75-5	330.35	0.01
Guthion®	86-50-0	317.32	0.01
Guthion Ethyl	2642-71-9	345.37	0.01
fenitrothion	122-14-5	277.23	0.01
ethion	563-12-2	384.47	0.01
dimethoate	60-51-5	229.25	0.01
dichlorvos	62-73-7	220.97	0.01
diazinon	333-41-5	304.34	0.01
chlorpyrifos	2921-88-2	350.58	0.01
chlorfenvinphos (mixture of z and E isomers)	470-90-6	359.56	0.01
Bromophos methyl	2104-96-3	365.99	0.01

3.2 Mixtures

Chemical name	CAS No.	Classification according to Regulation (EC) No. 1272/2008 [CLP]
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Methylene chloride	75-09-2	Carc. 2 (H351)
tetrachlorvinphos (ISO)	22248-79-9	No data available
terbufos	13071-79-9	Acute Tox. 2 (H300) Acute Tox. 1 (H310) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
pirimiphos methyl	29232-93-7	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
phosalone	2310-17-0	Acute Tox. 3 (H301) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
parathion	56-38-2	Acute Tox. 2 (H300) Acute Tox. 3 (H311) Acute Tox. 2 (H330) STOT RE 1 (H372) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
molinate	2212-67-1	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Skin Sens. 1 (H317) Carc. 2 (H351) Repr. 2 (H361f) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
methyl parathion	298-00-0	Acute Tox. 2 (H300) Acute Tox. 3 (H311) Acute Tox. 2 (H330) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Flam. Liq. 3 (H226)
methidathion	950-37-8	Acute Tox. 2 (H300) Acute Tox. 4 (H312) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
malathion	121-75-5	Acute Tox. 4 (H302) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Guthion®	86-50-0	Acute Tox. 2 (H300) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Guthion Ethyl	2642-71-9	Acute Tox. 2 (H300) Acute Tox. 3 (H311) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
fenitrothion	122-14-5	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
ethion	563-12-2	Acute Tox. 3 (H301) Acute Tox. 4 (H312) Aquatic Acute 1 (H400)

		Aquatic Chronic 1 (H410)
dimethoate	60-51-5	Acute Tox. 4 (H302) Acute Tox. 4 (H312)
dichlorvos	62-73-7	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 2 (H330) Skin Sens. 1 (H317) Aquatic Acute 1 (H400)
diazinon	333-41-5	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
chlorpyrifos	2921-88-2	Acute Tox. 3 (H301) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
chlorfenvinphos (mixture of z and E isomers)	470-90-6	Acute Tox. 2 (H300) Acute Tox. 3 (H311) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Bromophos methyl	2104-96-3	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

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

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	Immediate medical attention may be required. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. If breathing is difficult, administer oxygen. 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. Get immediate medical advice/attention.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Get immediate medical advice/attention.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Call a physician or poison control center immediately.

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

Symptoms	Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Skin irritation. Eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO₂, alcohol-resistant foam or water spray.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical Thermal decomposition can lead to release of irritating and toxic gases and vapors. Keep product and empty container away from heat and sources of ignition. Containers may explode when heated.

Hazardous combustion products Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen chloride. Phosgene.

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 Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. 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 Should not be released into the environment. 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 Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed 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 Use personal protection equipment. Avoid contact with eyes. Avoid breathing vapors or mists. Avoid contact with skin. Handle in accordance with good industrial hygiene and safety practice.

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. For more information, see product label and/or certificate of analysis.

7.3. Specific end use(s)

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

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Methylene chloride 75-09-2	-	TWA: 100 ppm TWA: 350 mg/m ³ STEL: 300 ppm STEL: 1060 mg/m ³ Sk*	TWA: 50 ppm TWA: 178 mg/m ³ STEL: 100 ppm STEL: 356 mg/m ³ *	TWA: 50 ppm TWA: 177 mg/m ³	TWA: 50 ppm TWA: 180 mg/m ³ H*
terbufos 13071-79-9	-	-	-	TWA: 0.01 mg/m ³ vía dérmica*	-
parathion 56-38-2	-	-	TWA: 0.1 mg/m ³ *	TWA: 0.05 mg/m ³ vía dérmica*	TWA: 0.1 mg/m ³ H*
methyl parathion 298-00-0	-	-	TWA: 0.2 mg/m ³ *	TWA: 0.02 mg/m ³ vía dérmica*	-
malathion 121-75-5	-	TWA: 10 mg/m ³ STEL: 30 mg/m ³ Sk*	TWA: 10 mg/m ³ *	TWA: 10 mg/m ³ vía dérmica*	TWA: 15 mg/m ³
Guthion® 86-50-0	-	-	TWA: 0.2 mg/m ³ *	TWA: 0.2 mg/m ³ vía dérmica*	TWA: 0.2 mg/m ³ H*
ethion 563-12-2	-	-	TWA: 0.4 mg/m ³ *	TWA: 0.05 mg/m ³ vía dérmica*	-
dichlorvos 62-73-7	-	-	TWA: 0.1 ppm TWA: 1 mg/m ³ *	TWA: 0.1 ppm TWA: 0.91 mg/m ³ vía dérmica*	TWA: 0.11 ppm TWA: 1 mg/m ³ H*
diazinon 333-41-5	-	-	TWA: 0.1 mg/m ³ *	TWA: 0.01 mg/m ³ vía dérmica*	TWA: 0.1 mg/m ³ H*
chlorpyrifos 2921-88-2	-	TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³ Sk*	TWA: 0.2 mg/m ³ *	TWA: 0.1 mg/m ³ vía dérmica*	TWA: 0.2 mg/m ³ H*
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Methylene chloride 75-09-2	-	TWA: 50 ppm	-	TWA: 100 ppm TWA: 350 mg/m ³ STEL: 250 ppm STEL: 880 mg/m ³	TWA: 35 ppm TWA: 122 mg/m ³ H*
terbufos 13071-79-9	-	TWA: 0.01 mg/m ³ P*	-	-	-
parathion 56-38-2	-	TWA: 0.05 mg/m ³ P*	-	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ iho*	TWA: 0.1 mg/m ³ H*
methyl parathion 298-00-0	-	TWA: 0.2 mg/m ³ P*	-	TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³ iho*	TWA: 0.2 mg/m ³ H*
malathion 121-75-5	-	TWA: 1 mg/m ³ P*	-	TWA: 10 mg/m ³ STEL: 20 mg/m ³ iho*	TWA: 5 mg/m ³ H*
Guthion® 86-50-0	-	TWA: 0.2 mg/m ³ P*	-	TWA: 0.02 mg/m ³ STEL: 0.06 mg/m ³ iho*	TWA: 0.2 mg/m ³ H*
ethion	-	TWA: 0.05 mg/m ³	-	-	TWA: 0.4 mg/m ³

563-12-2		P*			H*
dichlorvos 62-73-7	-	TWA: 0.1 mg/m ³ P*	-	TWA: 0.5 mg/m ³ STEL: 2 mg/m ³ iho*	TWA: 0.1 ppm TWA: 1 mg/m ³ H*
diazinon 333-41-5	-	TWA: 0.1 mg/m ³ P*	-	TWA: 0.1 ppm TWA: 0.3 mg/m ³ iho*	TWA: 0.1 mg/m ³ H*
chlorpyrifos 2921-88-2	-	TWA: 0.1 mg/m ³ P*	-	TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³ iho*	TWA: 0.2 mg/m ³ H*
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Methylene chloride 75-09-2	TWA: 50 ppm TWA: 175 mg/m ³ STEL 200 ppm STEL 700 mg/m ³ H*	TWA: 50 ppm TWA: 180 mg/m ³	TWA: 88 mg/m ³	TWA: 15 ppm TWA: 50 mg/m ³ STEL: 15 ppm STEL: 50 mg/m ³ H*	TWA: 50 ppm TWA: 174 mg/m ³ STEL: 150 ppm STEL: 550 mg/m ³ Sk*
parathion 56-38-2	TWA: 0.1 mg/m ³ H*	TWA: 0.1 mg/m ³ H*	-	TWA: 0.05 mg/m ³ STEL: 0.05 mg/m ³ H*	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ Sk*
methyl parathion 298-00-0	TWA: 0.2 mg/m ³ STEL 0.4 mg/m ³ H*	TWA: 0.2 mg/m ³ H*	STEL: 0.6 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.2 mg/m ³ STEL: 0.2 mg/m ³ H*	TWA: 0.02 mg/m ³ STEL: 0.06 mg/m ³ Sk*
malathion 121-75-5	TWA: 10 mg/m ³	TWA: 10 mg/m ³ H*	STEL: 10 mg/m ³ TWA: 1 mg/m ³	TWA: 5 mg/m ³ STEL: 5 mg/m ³ H*	TWA: 1 mg/m ³ STEL: 3 mg/m ³ Sk*
Guthion® 86-50-0	TWA: 0.2 mg/m ³ STEL 2 mg/m ³ H*	STEL: 0.2 ppm H*	-	TWA: 0.2 mg/m ³ STEL: 0.2 mg/m ³ H*	TWA: 0.2 mg/m ³ STEL: 0.6 mg/m ³ Sk*
fenitrothion 122-14-5	TWA: 1 mg/m ³	-	STEL: 0.1 mg/m ³ TWA: 0.02 mg/m ³	-	-
ethion 563-12-2	TWA: 0.4 mg/m ³ STEL 0.8 mg/m ³ H*	TWA: 0.4 mg/m ³ H*	-	-	-
dimethoate 60-51-5	-	-	STEL: 0.6 mg/m ³ TWA: 0.2 mg/m ³	-	-
dichlorvos 62-73-7	TWA: 0.1 ppm TWA: 1 mg/m ³ STEL 1 ppm STEL 10 mg/m ³ H*	TWA: 0.1 ppm TWA: 1 mg/m ³ STEL: 0.2 ppm STEL: 2 mg/m ³ H*	STEL: 3 mg/m ³ TWA: 1 mg/m ³	TWA: 0.1 ppm TWA: 1 mg/m ³ STEL: 0.1 ppm STEL: 1 mg/m ³ H*	TWA: 0.1 ppm TWA: 1 mg/m ³ STEL: 0.3 ppm STEL: 3 mg/m ³ Sk*
diazinon 333-41-5	TWA: 0.1 mg/m ³ STEL 0.4 mg/m ³ H*	TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³ H*	-	TWA: 0.1 mg/m ³ STEL: 0.1 mg/m ³ H*	TWA: 0.01 mg/m ³ STEL: 0.03 mg/m ³ Sk*
chlorpyrifos 2921-88-2	TWA: 0.2 mg/m ³ STEL 0.4 mg/m ³ H*	TWA: 0.2 mg/m ³ H*	STEL: 0.6 mg/m ³ TWA: 0.2 mg/m ³	TWA: 0.2 mg/m ³ STEL: 0.2 mg/m ³ H*	TWA: 0.1 mg/m ³ STEL: 0.3 mg/m ³ Sk*
chlorfenvinphos (mixture of z and E isomers) 470-90-6	-	-	STEL: 0.1 mg/m ³ TWA: 0.01 mg/m ³	-	-

Biological occupational exposure limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
Methylene chloride 75-09-2	-	30	-	0.3	
parathion 56-38-2	-	-	-	0.5 70	500 µg/L 70 %
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Methylene chloride 75-09-2	-	0.5 5	-	-	-

parathion 56-38-2	-	500	-	-	-
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Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls Apply technical measures to comply with the occupational exposure limits. Showers, eyewash stations, and ventilation systems. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand Protection Protective gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Wash hands thoroughly after handling.

Skin and body protection Chemical resistant apron. Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance May vary
Odor May vary.
Color May vary
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	No data available	None known
Melting point / freezing point	-97 °C	None known
Boiling point / boiling range	39 °C	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	23 vol %	
Lower flammability limit:	13 vol %	
Vapor pressure	20 mmHg @ 3502°C	None known
Vapor density	2.93 (Air = 1.0)	None known
Relative density	1.33	None known
Water solubility	No data available	None known

Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	556 °C	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

9.2. Other information

Softening point	No information available
Molecular weight (g/mol)	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available
Particle Size	No information available
Particle Size Distribution	No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity	No information available.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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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.
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Hazardous polymerization	Hazardous polymerization does not occur.
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10.4. Conditions to avoid

Conditions to avoid	Incompatible materials. Excessive heat.
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10.5. Incompatible materials

Incompatible materials	Strong oxidizing agents. Strong acids. Amines.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrogen chloride. Phosgene.
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Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
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Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Information on toxicological effects

Symptoms	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document mg/kg

Unknown acute toxicity 100 % of the mixture consists of ingredient(s) of unknown toxicity.
 100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
 100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Methylene chloride	= 1600 mg/kg (Rat)	>2000 mg/kg (Rat)	= 53 mg/L (Rat) 6 h = 76000 mg/m ³ (Rat) 4 h
tetrachlorvinphos (ISO)	= 465 mg/kg (Rat) = 480 mg/kg (Rat)	= 1500 mg/kg (Rat) > 2500 mg/kg (Rabbit)	
terbufos	= 1600 µg/kg (Rat) = 1.6 mg/kg (Rat)	= 7.4 mg/kg (Rat) = 1 mg/kg (Rabbit)	
pirimiphos methyl	= 2050 mg/kg (Rat) = 1250 mg/kg (Rat)	> 2 g/kg (Rabbit) > 4592 mg/kg (Rat)	
phosalone	= 120 mg/kg (Rat) = 85 mg/kg (Rat)	= 390 mg/kg (Rat) = 1 g/kg (Rabbit)	
parathion	= 2 mg/kg (Rat)	= 15 mg/kg (Rabbit)	= 84 mg/m ³ (Rat) 4 h
molinate	= 369 mg/kg (Rat) = 584 mg/kg (Rat)	= 3536 mg/kg (Rabbit) = 1167 mg/kg (Rat)	= 2100 mg/m ³ (Rat) 1 h
methyl parathion	= 2.9 mg/kg (Rat)	= 6 mg/kg (Rat) = 67 mg/kg (Rat) = 300 mg/kg (Rabbit)	= 0.135 mg/L (Rat) 4 h = 34 mg/m ³ (Rat) 4 h
methidathion	= 20 mg/kg (Rat) = 40 mg/kg (Rat)	> 4000 mg/kg (Rat) = 25 mg/kg (Rat) = 196 mg/kg (Rabbit)	= 50 mg/m ³ (Rat) 4 h
malathion	= 1390 mg/kg (Rat) = 290 mg/kg (Rat)	= 4100 mg/kg (Rabbit)	= 43790 µg/m ³ (Rat) 4 h
Guthion®	= 7 mg/kg (Rat) = 4.4 mg/kg (Rat)	= 150 mg/kg (Rat)	= 69 mg/m ³ (Rat) 1 h
Guthion Ethyl	= 7 mg/kg (Rat)	= 250 mg/kg (Rat)	
fenitrothion	= 330 mg/kg (Rat) = 250 mg/kg (Rat)	= 1260 mg/kg (Rat) = 1002 mg/kg (Rat) = 1250 mg/kg (Rabbit)	= 378 mg/m ³ (Rat) 4 h
ethion	= 13 mg/kg (Rat) = 21 mg/kg (Rat)	= 915 mg/kg (Rabbit) = 62 mg/kg (Rat)	= 0.45 mg/L (Rat) 4 h
dimethoate	= 255 mg/kg (Rat) = 60 mg/kg (Rat)	= 1 g/kg (Rabbit)	> 0.9 mg/L (Rat) 4 h
dichlorvos	= 56 mg/kg (Rat) = 17 mg/kg (Rat)	= 75 mg/kg (Rat) = 107 mg/kg (Rabbit)	= 15 mg/m ³ (Rat) 4 h

diazinon	= 66 mg/kg (Rat) = 485 mg/kg (Rat)	= 3600 mg/kg (Rabbit)	= 3.1 mg/L (Rat) 4 h
chlorpyrifos	= 135 mg/kg (Rat) = 82 mg/kg (Rat)	= 2 g/kg (Rabbit) > 5000 mg/kg (Rabbit) = 202 mg/kg (Rat)	> 200 mg/m ³ (Rat) 4 h
chlorfenvinphos (mixture of z and E isomers)	= 9.66 mg/kg (Rat) = 10 mg/kg (Rat)	= 31 mg/kg (Rat) = 400 mg/kg (Rabbit) = 26400 µg/kg (Rat)	= 0.05 mg/L (Rat) 4 h = 50 mg/m ³ (Rat) 4 h
Bromophos methyl	= 1600 mg/kg (Rat)	> 5 g/kg (Rat) = 2181 mg/kg (Rabbit)	

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.

Serious eye damage/eye irritation Irritating to eyes.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity Classification based on data available for ingredients. If this product is a mixture, the classification is not based on toxicology studies for this product, but is based solely on toxicology studies for ingredients found within this product. More detailed substance and/or ingredient information may be provided in the other sections of this SDS. Contains a known or suspected carcinogen.

Chemical name	European Union
Methylene chloride	Carc. 2
molinate	Carc. 2

Reproductive toxicity Experiments have shown reproductive toxicity effects on laboratory animals. Contains a known or suspected reproductive toxin.

Chemical name	European Union
molinate	Repr. 2

STOT - single exposure Central nervous system. Respiratory system.

STOT - repeated exposure liver. kidney. blood.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated. Should not be released into the environment. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Methylene chloride	500: 72 h Pseudokirchneriella subcapitata mg/L EC50 500: 96 h Pseudokirchneriella subcapitata mg/L EC50	140.8 - 277.8: 96 h Pimephales promelas mg/L LC50 flow-through 262 - 855: 96 h Pimephales promelas mg/L LC50 static 193: 96 h Lepomis macrochirus mg/L LC50 static 193: 96 h Lepomis macrochirus	EC50 = 1 mg/L 24 h EC50 = 2.88 mg/L 15 min	1532 - 1847: 48 h Daphnia magna mg/L EC50 Static 190: 48 h Daphnia magna mg/L EC50

		mg/L LC50 flow-through		
terbufos	-	0.013: 96 h Pimephales promelas mg/L LC50 flow-through	-	-
parathion	3.59: 72 h Pseudokirchneriella subcapitata mg/L EC50 10: 72 h Desmodesmus subspicatus mg/L EC50	0.25: 96 h Pimephales promelas mg/L LC50 static 0.699 - 1.070: 96 h Oncorhynchus mykiss mg/L LC50 static 0.24 - 1.03: 96 h Pimephales promelas mg/L LC50 flow-through 0.37 - 1.64: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.01 - 0.032: 96 h Lepomis macrochirus mg/L LC50 static 0.026: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.85: 96 h Cyprinus carpio mg/L LC50 static	-	0.0005 - 0.0008: 48 h Daphnia magna mg/L EC50 semi-static 0.0024: 48 h Daphnia magna mg/L EC50 0.0027 - 0.0034: 48 h Daphnia magna mg/L EC50 Flow through 0.0072: 48 h Daphnia magna mg/L EC50 Static
methyl parathion	-	-	-	0.0073: 48 h Daphnia magna mg/L EC50 0.0053 - 0.0061: 48 h Daphnia magna mg/L EC50 Flow through 0.00009 - 0.0002: 48 h Daphnia magna mg/L EC50 Static 0.0048 - 0.0096: 48 h Daphnia magna mg/L EC50 semi-static
malathion	4.06: 72 h Pseudokirchneriella subcapitata mg/L EC50	12.3 - 16.1: 96 h Pimephales promelas mg/L LC50 flow-through 0.34: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.010 - 0.088: 96 h Lepomis macrochirus mg/L LC50 static 0.094 - 0.146: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 9.7: 96 h Oryzias latipes mg/L LC50 static 3.1: 96 h Poecilia reticulata mg/L LC50 static 0.24 - 1.24: 96 h Cyprinus carpio mg/L LC50 static 0.089: 96 h Lepomis macrochirus mg/L LC50 1.2: 96 h Poecilia reticulata mg/L LC50 10.1: 96 h Pimephales promelas mg/L LC50 0.085: 96 h Cyprinus carpio mg/L LC50 semi-static 0.002: 96 h Cyprinus carpio mg/L LC50 0.028: 96 h	-	0.00014 - 0.014: 48 h Daphnia magna mg/L EC50

		Oncorhynchus mykiss mg/L LC50 6.45 - 11.5: 96 h Pimephales promelas mg/L LC50 static 0.0022 - 0.0074: 96 h Oncorhynchus mykiss mg/L LC50 static		
Guthion®	7.15: 96 h Desmodesmus subspicatus mg/L EC50	0.0037 - 0.0045: 96 h Lepomis macrochirus mg/L LC50 static 0.63: 96 h Poecilia reticulata mg/L LC50 static 0.41 - 1.28: 96 h Cyprinus carpio mg/L LC50 static 0.028 - 0.05: 96 h Pimephales promelas mg/L LC50 static 0.0023 - 0.0037: 96 h Oncorhynchus mykiss mg/L LC50 static 0.0037 - 0.0067: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.05 - 0.083: 96 h Pimephales promelas mg/L LC50 flow-through 0.007 - 0.011: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-	0.0011: 48 h Daphnia magna mg/L EC50 0.0039 - 0.0058: 48 h Daphnia magna mg/L EC50 Flow through 0.0012 - 0.002: 48 h Daphnia magna mg/L EC50 semi-static 0.001 - 0.0013: 48 h Daphnia magna mg/L EC50 Static
dimethoate	282.3: 72 h Pseudokirchneriella subcapitata mg/L EC50 36: 96 h Pseudokirchneriella subcapitata mg/L EC50 static 35: 72 h Pseudokirchneriella subcapitata mg/L EC50	26.11: 96 h Cyprinus carpio mg/L LC50 static 340: 96 h Poecilia reticulata mg/L LC50 static 4.1 - 9.3: 96 h Oncorhynchus mykiss mg/L LC50 static 6: 96 h Lepomis macrochirus mg/L LC50 static	-	5.44: 48 h Daphnia magna mg/L EC50 0.48 - 0.66: 48 h Daphnia magna mg/L EC50 Static
diazinon	6.4: 168 h Desmodesmus subspicatus mg/L EC50 17.3: 120 h Desmodesmus subspicatus mg/L EC50	4.7: 96 h Pimephales promelas mg/L LC50 semi-static 0.4 - 0.8: 96 h Pimephales promelas mg/L LC50 flow-through 3.4 - 5.2: 96 h Pimephales promelas mg/L LC50 static 0.022: 96 h Lepomis macrochirus mg/L LC50 static 4: 96 h Poecilia reticulata mg/L LC50 3.43: 96 h Cyprinus carpio mg/L LC50 semi-static 0.8: 96 h Poecilia reticulata mg/L LC50 semi-static 0.09: 96 h Oncorhynchus mykiss mg/L LC50 static 0.000072: 96 h Cyprinus carpio mg/L LC50 static 0.31 - 0.62: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.022: 96 h	-	0.0004 - 0.00059: 48 h Daphnia magna mg/L EC50 Static 0.0006 - 0.0009: 48 h Daphnia magna mg/L EC50 semi-static 0.00096: 48 h Daphnia magna mg/L EC50

		Lepomis macrochirus mg/L LC50 3: 96 h Poecilia reticulata mg/L LC50 static 2.3: 96 h Oncorhynchus mykiss mg/L LC50		
chlorpyrifos	-	0.0047 - 0.0075: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.0013: 96 h Lepomis macrochirus mg/L LC50 static 0.00717: 96 h Poecilia reticulata mg/L LC50 0.11 - 0.13: 96 h Pimephales promelas mg/L LC50 flow-through 0.00717: 96 h Poecilia reticulata mg/L LC50 semi-static 0.008: 96 h Cyprinus carpio mg/L LC50 static 0.0026: 96 h Lepomis macrochirus mg/L LC50 0.002 - 0.032: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.011: 96 h Oncorhynchus mykiss mg/L LC50 0.001: 96 h Oncorhynchus mykiss mg/L LC50 static	-	0.00012 - 0.00023: 48 h Daphnia magna mg/L EC50 Static 0.00009 - 0.00012: 48 h Daphnia magna mg/L EC50 Flow through

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Chemical name	Partition coefficient
Methylene chloride	1.25
terbufos	4.48
phosalone	3.77
parathion	3.15
methyl parathion	2.8
malathion	2.748
Guthion®	2.96
dimethoate	0.704
diazinon	3.3
chlorpyrifos	4.96

12.4. Mobility in soil

Mobility in soil No information available.

Mobility Will likely be mobile in the environment due to its volatility.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Other adverse effects

Other adverse effects No information available.

Endocrine Disruptor Information

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
tetrachlorvinphos (ISO)	Group III Chemical	-
parathion	Group II Chemical	-
molinate	Group III Chemical	-
methyl parathion	Group II Chemical	-
malathion	Group II Chemical	-
fenitrothion	Group III Chemical	-
dimethoate	Group II Chemical	-
dichlorvos	Group III Chemical	-
diazinon	Group II Chemical	-
chlorpyrifos	Group III Chemical	-
chlorfenvinphos (mixture of z and E isomers)	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/ID no. UN1593
14.2 Proper shipping name Dichloromethane
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Marine pollutant No information available
14.6 Special Provisions No information available
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

14.1 UN/ID no. UN1593
14.2 Proper shipping name Dichloromethane
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Environmental hazard No information available
14.6 Special Provisions No information available

ADR

14.1 UN/ID no. UN1593
14.2 Proper shipping name Dichloromethane
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Environmental hazard No information available

14.6 Special Provisions No information available

IATA

14.1 UN/ID no. UN1593
14.2 Proper shipping name Dichloromethane
14.3 Hazard Class 6.1
14.4 Packing Group III
14.5 Environmental hazard No information available
14.6 Special Provisions No information available

Section 15: REGULATORY INFORMATION

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

France

Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Methylene chloride 75-09-2	RG 12	-
terbufos 13071-79-9	RG 34	-
pirimiphos methyl 29232-93-7	RG 34	-
phosalone 2310-17-0	RG 34	-
parathion 56-38-2	RG 34	-
methyl parathion 298-00-0	RG 34	-
methidathion 950-37-8	RG 34	-
malathion 121-75-5	RG 34	-
Guthion® 86-50-0	RG 34	-
fenitrothion 122-14-5	RG 34	-
ethion 563-12-2	RG 34	-
dimethoate 60-51-5	RG 34	-
dichlorvos 62-73-7	RG 34	-
diazinon 333-41-5	RG 34	-
chlorpyrifos 2921-88-2	RG 34	-
chlorfenvinphos (mixture of z and E isomers) 470-90-6	RG 34	-

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 contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Methylene chloride - 75-09-2	59.	

Persistent Organic Pollutants

Not applicable

Export Notification requirements

This product contains substances which are regulated pursuant to Regulation (EC) No. 689/2008 of the European parliament and of the council concerning the export and import of dangerous chemicals

Chemical name	European Export/Import Restrictions per (EC) 689/2008 - Annex Number
terbufos - 13071-79-9	I.1
phosalone - 2310-17-0	I.1 I.2
parathion - 56-38-2	I.1 I.3
methyl parathion - 298-00-0	I.1 I.2 I.3
methidathion - 950-37-8	I.1
malathion - 121-75-5	I.1
Guthion® - 86-50-0	I.1 I.3
Guthion Ethyl - 2642-71-9	I.1
fenitrothion - 122-14-5	I.1 I.2
ethion - 563-12-2	I.1
dichlorvos - 62-73-7	I.1 I.2
diazinon - 333-41-5	I.1 I.2
chlorfenvinphos (mixture of z and E isomers) - 470-90-6	I.1

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

International Inventories

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

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

Chemical Safety Report

A Chemical Safety Assessment has not been carried out for this substance

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
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H300 - Fatal if swallowed
H310 - Fatal in contact with skin
H332 - Harmful if inhaled
H351 - Suspected of causing cancer if swallowed
H361f - Suspected of damaging fertility
H373 - May cause damage to organs through prolonged or repeated exposure if inhaled
H301 - Toxic if swallowed
H312 - Harmful in contact with skin
H311 - Toxic in contact with skin
H330 - Fatal if inhaled
H226 - Flammable liquid and vapor
H372 - Causes damage to organs through prolonged or repeated exposure if inhaled

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

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Reason for revision SDS sections updated

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