



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

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

1.1 Product identifier

Product name: **Organophosphorous PesticideMix 1 200 µg/mL in Acetone**

Part number: DRE-XA06140100AC

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

No further relevant information available.

Application of the substance / the mixture Reference material for laboratory use only

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

LGC Limited
Queens Road
Teddington
Middlesex TW11 0LY
UNITED KINGDOM

Tel : +44 (0) 20 8943 7000
Fax : +44 (0) 20 8943 2767
eMail : gb@lgcstandards.com
Web : www.lgcstandards.com

Further information obtainable from:

Product safety department
eMail : sds-request@lgcgroup.com

1.4 Emergency telephone number: +44 (0) 20 8943 7000 (Monday - Friday : 8am - 5pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 1)

· Hazard pictograms



· Signal word *Danger*

· Hazard-determining components of labelling:

Acetone

· Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H410 Very toxic to aquatic life with long lasting effects.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· **Description:** Also contains substances at levels not considered to be hazardous.

· Dangerous components:

CAS: 67-64-1 EINECS: 200-662-2 RTECS: AL 3150000	Acetone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	>99%
CAS: 563-12-2 EINECS: 209-242-3 RTECS: TE 4550000	ethion (ISO) ⚠ Acute Tox. 3, H301; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H312	<0.1%

(Contd. on page 3)



Safety data sheet

according to 1907/2006/EC, Article 31

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Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 2)

CAS: 121-75-5 EINECS: 204-497-7 RTECS: WM 8400000	Malathion (ISO) ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	<0.1%
CAS: 56-38-2 EINECS: 200-271-7 RTECS: TF 4550000	parathion (ISO) ⚠ Acute Tox. 2, H300; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ STOT RE 1, H372; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%
CAS: 298-00-0 EINECS: 206-050-1 RTECS: TG 0175000	Parathion-methyl (ISO) ⚠ Flam. Liq. 3, H226; ⚠ Acute Tox. 2, H300; Acute Tox. 3, H311; Acute Tox. 2, H330; ⚠ STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<0.1%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** Rinse mouth. Do not induce vomiting.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

(Contd. on page 4)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 3)

Ensure adequate ventilation.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling** Store in cool, dry place in tightly closed receptacles.

· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Please refer to the manufacturer's certificate for specific storage and transport temperature conditions.

Store only in the original receptacle unless other advice is given on the CoA.

Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

67-64-1 Acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm

Long-term value: 1210 mg/m³, 500 ppm

· **Additional information:** Lists used were valid at the time of SDS preparation.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required.

(Contd. on page 5)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 4)

· Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374



Protective gloves

· Material of gloves Butyl rubber, BR**· Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Tightly sealed goggles

SECTION 9: Physical and chemical properties**· 9.1 Information on basic physical and chemical properties****· General Information****· Appearance:**

Form:	Liquid
Colour:	Colourless
Odour:	Sweetish
Odour threshold:	Not determined.

· pH-value: Not determined.**· Change in condition**

Melting point/freezing point:	-94.7 °C
Initial boiling point and boiling range:	55 °C

· Flash point: -19 °C**· Flammability (solid, gas):** Not determined.**· Ignition temperature:** 465 °C**· Decomposition temperature:** Not determined.**· Auto-ignition temperature:** Product is not selfigniting.**· Explosive properties:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

(Contd. on page 6)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 5)

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|--|--|
| · Explosion limits: | |
| Lower: | 2.6 Vol % |
| Upper: | 13 Vol % |
| · Vapour pressure at 20 °C: | 233 hPa |
| · Density at 20 °C: | 0.79071 g/cm ³ |
| · Relative density | Not determined. |
| · Vapour density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| · Partition coefficient: n-octanol/water: | Not determined. |
| · Viscosity: | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** Stable under normal conditions.
- **10.2 Chemical stability** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
Formation of toxic gases is possible during heating or in case of fire.
- **10.3 Possibility of hazardous reactions** May form flammable/explosive vapour-air mixture.
- **10.4 Conditions to avoid**
Sources of ignition
Heat.
- **10.5 Incompatible materials:** Strong oxidizing agents.
- **10.6 Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:**67-64-1 Acetone**

Oral	LD50	5,800 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

563-12-2 ethion (ISO)

Oral	LD50	13 mg/kg (rat)
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(Contd. on page 7)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 6)

<i>Dermal</i>	<i>LD50</i>	62 mg/kg (rat)
	<i>LD 50 (Intraperitoneal)</i>	26 mg/kg (rat)
121-75-5 Malathion (ISO)		
<i>Oral</i>	<i>LD50</i>	290 mg/kg (rat)
<i>Dermal</i>	<i>LD50</i>	4,100 mg/kg (rabbit)
<i>Inhalative</i>	<i>LC50/4 h</i>	0.0438 mg/l (rat)
56-38-2 parathion (ISO)		
<i>Oral</i>	<i>LD50</i>	2 mg/kg (rat)
<i>Dermal</i>	<i>LD50</i>	15 mg/kg (rabbit)
<i>Inhalative</i>	<i>LC50/4 h</i>	0.084 mg/l (rat)
298-00-0 Parathion-methyl (ISO)		
<i>Oral</i>	<i>LD50</i>	6.01 mg/kg (rat)
<i>Dermal</i>	<i>LD50</i>	67 mg/kg (rat)
<i>Inhalative</i>	<i>LC50/4 h</i>	0.034 mg/l (rat)
86-50-0 Azinphos-methyl (ISO)		
<i>Oral</i>	<i>LD50</i>	7 mg/kg (rat)
<i>Dermal</i>	<i>LD50</i>	88 mg/kg (rat)
<i>Inhalative</i>	<i>LC50/4 h</i>	0.017 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**
May cause drowsiness or dizziness.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

563-12-2 ethion (ISO)

LC50/48 0.0028 mg/l (crustacean)

EC50/48 h 0.0028 mg/l (crustacean)

LC50/96 h 0.232 mg/l (fish)

(Contd. on page 8)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 7)

121-75-5 Malathion (ISO)

LC50/48 0.033 mg/l (crustacean)

LC50/96 h 0.28 mg/l (fish)

56-38-2 parathion (ISO)

LC50/48 0.00231 mg/l (crustacean)

EC50/72h 10 mg/l (Algae)

LC50/96 h 1 mg/l (fish)

298-00-0 Parathion-methyl (ISO)

LC50/48 0.011 mg/l (crustacean)

EC50/48 h 0.0026 mg/l (crustacean)

EC50/72h 57.4 mg/l (Algae)

EC50/96h 11 mg/l (Algae)

LC50/96 h 2.7 mg/l (fish)

86-50-0 Azinphos-methyl (ISO)

LC50/48 0.00115 mg/l (crustacean)

EC50/48 h 0.0034 mg/l (crustacean)

LC50/96 h 0.032 mg/l (fish)

· **12.2 Persistence and degradability** No further relevant information available.· **12.3 Bioaccumulative potential** No further relevant information available.· **12.4 Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:** Very toxic for fish· **Additional ecological information:**· **General notes:**

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

· **12.5 Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **12.6 Other adverse effects** No further relevant information available.**SECTION 13: Disposal considerations**· **13.1 Waste treatment methods**· **Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

(Contd. on page 9)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 8)

- **Uncleaned packaging:**
- **Recommendation:** Dispose of in accordance with national regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
 - **ADR, IMDG, IATA**
 - **ADR**
 - **IMDG**
 - **IATA**
- UN1090
1090 ACETONE mixture, ENVIRONMENTALLY HAZARDOUS
ACETONE mixture, MARINE POLLUTANT
ACETONE mixture

· 14.3 Transport hazard class(es)

· ADR, IMDG



- **Class**
 - **Label**
- 3 Flammable liquids.
3

· IATA



- **Class**
 - **Label**
- 3 Flammable liquids.
3

· 14.4 Packing group

- **ADR, IMDG, IATA**
- II

- **14.5 Environmental hazards:**
 - **Marine pollutant:**
 - **Special marking (ADR):**
- Product contains environmentally hazardous substances:
Azinphos-methyl (ISO), ethion (ISO)
Symbol (fish and tree)
Symbol (fish and tree)

- **14.6 Special precautions for user**
 - **Danger code (Kemler):**
 - **EMS Number:**
 - **Stowage Category**
- Warning: Flammable liquids.
33
F-E,S-D
E

- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**
- Not applicable.

(Contd. on page 10)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 9)

· Transport/Additional information:**· ADR****· Limited quantities (LQ)**

1L

· Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· Transport category

2

· Tunnel restriction code

D/E

· UN "Model Regulation":UN 1090 ACETONE MIXTURE, 3, 11,
ENVIRONMENTALLY HAZARDOUS**SECTION 15: Regulatory information****· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****· Directive 2012/18/EU****· Named dangerous substances - ANNEX I** None of the ingredients is listed.**· Seveso category**

E1 Hazardous to the Aquatic Environment

P5c FLAMMABLE LIQUIDS

· Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t**· Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t**· REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40**· Regulation (EU) No 649/2012**

563-12-2	ethion (ISO)	Annex I Part 1
121-75-5	Malathion (ISO)	Annex I Part 1
56-38-2	parathion (ISO)	Annex I Part 1 Annex I Part 3
298-00-0	Parathion-methyl (ISO)	Annex I Part 1 Annex I Part 2 Annex I Part 3

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

The information in this safety data sheet (SDS) has been prepared with due care and is true and accurate to the best of our knowledge. The user must determine the suitability of the information for its particular purpose, ensure compliance with existing laws and regulations, and be aware that other or additional safety or performance considerations may arise when using, handling and/ or storing the material. The information in this SDS does not purport to be all inclusive or a guarantee as to the properties of the material supplied, and should be used only as a guide. LGC makes no warranties or representations as to the accuracy and completeness of the information contained herein, shall not be held responsible for the suitability of this information for the user's intended purposes or the consequences of such use, and shall not be liable for any damage or loss, howsoever arising, direct or otherwise.

(Contd. on page 11)



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 26.09.2018

Version number 2

Revision: 26.09.2018

Product name: Organophosphorous PesticideMix 1 200 µg/mL in Acetone

(Contd. from page 10)

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 2: Acute toxicity – Category 2
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· Sources

Tables 3.1 and 3.2 from Annex 6 of EC 1272/2008, EC 1907/2006, EH40/2005 as amended 2011, Registry of Toxic Effects of Chemical Substances (RTECS), The Dictionary of Substances and their Effects, 1st Edition, IUCLID.

· Data compared to the previous version altered. All sections have been updated.

GB