

HELAIAN DATA KESELAMATAN SAFETY DATA SHEET



Pesticide Analyzer Checkout Solution

Bahagian 1: Pengenalan bahan kimia berbahaya dan pembekal

Pengecam produk : Pesticide Analyzer Checkout Solution
No. bahagian : 5190-0468

Kegunaan relevan yang dikenal pasti bagi zat atau campuran serta kegunaan yang tidak dinasihatkan

Kegunaan dikenal pasti : Reagen dan Piawaian untuk Kegunaan Makmal Kimia Analisis
5190-0468-1 Pesticide Analyzer Checkout Solution 5 x 1 ml

Butir-butir pembekal : Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

alamat e-mel orang yang bertanggungjawab terhadap SDS ini : pdl-msds_author@agilent.com

Nombor telefon kecemasan (berserta waktu urusan) : CHEMTREC®: +60 3-9212 5794

Section 1. Identification of the hazardous chemical and of the supplier

Product identifier : Pesticide Analyzer Checkout Solution
Part no. : 5190-0468

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
5190-0468-1 Pesticide Analyzer Checkout Solution 5 x 1 ml

Supplier's details : Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

Emergency telephone number (with hours of operation) : CHEMTREC®: +60 3-9212 5794

Bahagian 2: Pengenalan bahaya

Klasifikasi bahan atau campuran

H225	CECAIR MUDAH TERBAKAR - Kategori 2
H319	KERENGSAAN MATA - Kategori 2
H336	KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN TUNGGAL (Kesan narkotik) - Kategori 3
H400	BERBAHAYA KEPADA PERSEKITARAN AKUATIK - BAHAYA AKUT - Kategori 1
H410	BERBAHAYA KEPADA PERSEKITARAN AKUATIK - BAHAYA KRONIK - Kategori 1

Unsur label GHS

Piktogram bahaya



Kata isyarat

: Bahaya

Pernyataan bahaya

: H225 - Cecair dan wap amat mudah terbakar.
H319 - Menyebabkan kerengsaan mata yang serius.
H336 - Boleh menyebabkan mengantuk atau kepeningan.
H410 - Sangat toksik kepada hidupan akuatik dengan kesan kekal berpanjangan.

Pernyataan berjaga-jaga

Pencegahan

: P280 - Pakai pelindung mata atau muka.
P210 - Jauhkan daripada haba, permukaan panas, percikan api, nyalaan terbuka dan sumber nyalaan yang lain. Dilarang merokok.
P273 - Elakkan pelepasan bahan ke persekitaran.

Tindakan

: P391 - Pungut kumpul tumpahan.

Penyimpanan

: P403 + P235 - Simpan di tempat yang dialihudarkan dengan baik. Simpan di tempat dingin.

Pelupusan

: P501 - Lupuskan kandungan dan bekas mengikut semua peraturan tempatan, serantau, nasional dan antarabangsa.

Bahaya lain yang tidak menyebabkan ia diklasifikasikan

: Tiada yang diketahui.

Section 2. Hazards identification

Classification of the substance or mixture

H225	FLAMMABLE LIQUIDS - Category 2
H319	EYE IRRITATION - Category 2
H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
H400	HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 1
H410	HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 1

GHS label elements

Hazard pictograms



Signal word

: Danger

Section 2. Hazards identification

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

Prevention : P280 - Wear eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P273 - Avoid release to the environment.

Response : P391 - Collect spillage.

Storage : P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification : None known.

Bahagian 3: Komposisi dan maklumat mengenai ramuan bahan kimia berbahaya

Bahan/Penyediaan : Campuran

Nama Ramuan	%	Pengenal pasti
Aseton	≥90	CAS: 67-64-1
dichlorvos (ISO)	≤0.1	CAS: 62-73-7
mevinphos (ISO)	≤0.1	CAS: 7786-34-7
ethalfuralin	≤0.1	CAS: 55283-68-6
trifluralin (ISO)	<0.01	CAS: 1582-09-8
atrazine (ISO)	≤0.1	CAS: 1912-24-9
chlorpyrifos-methyl	≤0.1	CAS: 5598-13-0
heptachlor (ISO)	≤0.1	CAS: 76-44-8
malathion (ISO)	≤0.1	CAS: 121-75-5
chlorpyrifos (ISO)	≤0.1	CAS: 2921-88-2
dieldrin (ISO)	≤0.1	CAS: 60-57-1
2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	<0.01	CAS: 72-55-9
3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	≤0.1	CAS: 51235-04-2
leptophos (ISO)	≤0.1	CAS: 21609-90-5
fenarimol (ISO)	≤0.1	CAS: 60168-88-9
coumaphos (ISO)	≤0.1	CAS: 56-72-4
deltamethrin (ISO)	≤0.1	CAS: 52918-63-5
3-phenoxybenzyl-2-(4-ethoxyphenyl)-2-methylpropyl ether	≤0.1	CAS: 80844-07-1

Bahagian 3: Komposisi dan maklumat mengenai ramuan bahan kimia berbahaya

Tidak ada ramuan tambahan, setakat yang diketahui pembekal dan dalam pemekatan yang boleh didapati, diklasifikasikan sebagai berbahaya kepada kesihatan atau persekitaran sehingga perlu dilaporkan dalam seksyen ini.

Had pendedahan pekerjaan, jika tersedia, disenaraikan dalam seksyen 8.

Section 3. Composition and information of the ingredients of the hazardous chemical

Substance/mixture : Mixture

Ingredient name	%	Identifiers
Acetone	≥90	CAS: 67-64-1
Dichlorvos (ISO)	≤0.1	CAS: 62-73-7
Mevinphos (ISO)	≤0.1	CAS: 7786-34-7
Ethalfuralin	≤0.1	CAS: 55283-68-6
Trifluralin (ISO)	<0.01	CAS: 1582-09-8
Atrazine (ISO)	≤0.1	CAS: 1912-24-9
Chlorpyrifos-methyl	≤0.1	CAS: 5598-13-0
Heptachlor (ISO)	≤0.1	CAS: 76-44-8
Malathion (ISO)	≤0.1	CAS: 121-75-5
Chlorpyrifos (ISO)	≤0.1	CAS: 2921-88-2
Dieldrin (ISO)	≤0.1	CAS: 60-57-1
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene	<0.01	CAS: 72-55-9
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	≤0.1	CAS: 51235-04-2
Leptophos (ISO)	≤0.1	CAS: 21609-90-5
Fenarimol (ISO)	≤0.1	CAS: 60168-88-9
Coumaphos (ISO)	≤0.1	CAS: 56-72-4
Deltamethrin (ISO)	≤0.1	CAS: 52918-63-5
3-Phenoxybenzyl-2-(4-ethoxyphenyl)-2-methylpropyl ether	≤0.1	CAS: 80844-07-1

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Bahagian 4: Langkah-langkah pertolongan cemas

Perihalan langkah pertolongan cemas yang perlu

- Sentuhan mata** : Segera jirus mata dengan air yang banyak, sekali-sekala kedipkan mata. Periksa jika memakai kanta mata dan keluarkan jika ada. Terus membilas untuk sekurang-kurangnya 10 minit. Dapatkan bantuan perubatan.
- Penyedutan** : Pindahkan mangsa ke kawasan berudara segar dan biarkan mangsa dalam keadaan rehat supaya mangsa dapat bernafas dengan selesa. Jika disyaki wasap masih ada, penyelamat hendaklah memakai pelindung (topeng) yang sesuai atau menggunakan peralatan pernafasan swalengkap. Jika tidak bernafas, jika bernafas tak menentu atau henti pernafasan berlaku, berikan pernafasan pemulihan atau oksigen oleh kakitangan terlatih. Berkemungkinan merbahaya kepada orang yang memberi bantuan pernafasan mulut-ke-mulut. Dapatkan bantuan perubatan. Jika perlu, hubungi pusat racun atau doktor. Jika pengsan, letakkan dalam kedudukan pemulihan dan dapatkan pemeriksaan perubatan segera. Kekalkan pembukaan laluan udara. Longgarkan bahagian baju yang ketat seperti leher baju, tali leher atau tali pinggang.
- Sentuhan kulit** : Curahkan pada kulit tercemar dengan air yang banyak. Tanggalkan pakaian dan kasut yang tercemar. Dapatkan bantuan perubatan jika gejala-gejala berlaku. Basuh pakaian sebelum dipakai semula. Bersihkan kasut sepenuhnya sebelum dipakai semula.
- Pengingesan** : Basuh mulut dengan air. Tanggalkan gigi palsu, jika ada. Jika bahan telah ditelan dan orang yang mengalami dedahan sedar, berikan sedikit air untuk minum. Hentikan jika orang tersebut rasa sakit kerana pemuntahan boleh membahayakan. Jangan paksa muntahan kecuali diarahkan berbuat demikian oleh kakitangan perubatan. Jika pemuntahan berlaku, kepala hendaklah direndahkan agar muntah tidak memasuki paru-paru. Dapatkan bantuan perubatan. Jika perlu, hubungi pusat racun atau doktor. Jangan sesekali memberi apa-apa ke dalam mulut seseorang yang tidak sedarkan diri. Jika pengsan, letakkan dalam kedudukan pemulihan dan dapatkan pemeriksaan perubatan segera. Kekalkan pembukaan laluan udara. Longgarkan bahagian baju yang ketat seperti leher baju, tali leher atau tali pinggang.

Simptom/kesan paling penting, akut dan tertunda

Kesan Kesihatan Akut Berpotensi

- Sentuhan mata** : Menyebabkan kerengsaan mata yang serius.
- Penyedutan** : Boleh menyebabkan depresi sistem saraf pusat. Boleh menyebabkan mengantuk atau kepeningan.
- Sentuhan kulit** : Tiada kesan yang penting atau bahaya kritikal yang diketahui.
- Pengingesan** : Boleh menyebabkan depresi sistem saraf pusat.

Gejala-gejala/tanda-tanda lampau terdedah

- Sentuhan mata** : Gejala yang teruk boleh termasuk yang berikut:
kesakitan atau kerengsaan
berair
kemerahan
- Penyedutan** : Gejala yang teruk boleh termasuk yang berikut:
mual atau muntah
sakit kepala
mengantuk/letih
pening/vertigo
tidak sedar
- Sentuhan kulit** : Tiada data spesifik.
- Pengingesan** : Tiada data spesifik.

Tanda rawatan perubatan segera dan rawatan khas diperlukan, jika perlu

- Nota kepada doktor** : Rawat mengikut gejala. Hubungi pakar rawatan keracunan segera jika tertelan atau tersedut dalam kuantiti yang besar.
- Rawatan spesifik** : Tiada rawatan spesifik.

Bahagian 4: Langkah-langkah pertolongan cemas

- Perlindungan untuk pemberi pertolongan cemas** : Jangan lakukan sebarang tindakan yang membabitkan risiko peribadi atau tanpa latihan yang sewajarnya. Jika disyaki wasap masih ada, penyelamat hendaklah memakai pelindung (topeng) yang sesuai atau menggunakan peralatan pernafasan swalengkap. Berkemungkinan merbahaya kepada orang yang memberi bantuan pernafasan mulut-ke-mulut

Lihat Maklumat Toksikologi (Seksyen 11)

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.
- Ingestion** : No specific data.

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Bahagian 5: Langkah-langkah pemadaman kebakaran

Kod Hazchem : •2YE

Media pemadam kebakaran

- Media pemadam yang sesuai** : Guna bahan kimia kering, CO₂, semburan air (kabut) atau busa.
- Media pemadam yang tidak sesuai** : Jangan guna jet air.

Bahaya khusus yang timbul daripada bahan kimia ini : Cecair dan wap amat mudah terbakar. Larian ke pembetung boleh menyebabkan bahaya kebakaran atau letupan. Ketika kebakaran atau jika dipanaskan, peningkatan tekanan akan berlaku dan bekas boleh pecah, dengan risiko letupan selepas itu. Wap/gas lebih berat dari udara dan akan tersebar di atas tanah. Wap boleh terkumpul di kawasan rendah atau tertutup atau bergerak agak jauh ke punca nyalaan dan nyala berbalik. Bahan ini sangat toksik pada hidupan akuia dengan kesan yang berkekalan. Air pemadaman kebakaran yang tercemar dengan bahan ini mesti dibendung dan dielakkan daripada memasuki jalan air, pembetung atau longkang.

Hasil penguraian terma yang berbahaya : Produk penguraian mungkin termasuk bahan berikut:
karbon dioksida
karbon monoksida

Tindakan perlindungan khas untuk ahli bomba : Kosongkan kawasan serta-merta dengan mengeluarkan semua orang daripada kawasan sekeliling jika kebakaran berlaku. Jangan lakukan sebarang tindakan yang membabitkan risiko peribadi atau tanpa latihan yang sewajarnya. Alih bekas daripada kawasan kebakaran jika ini boleh dilakukan tanpa risiko. Guna semburan air untuk menyejukkan bekas yang terdedah kepada api.

Alat perlindungan khas untuk ahli bomba : Ahli bomba perlulah memakai peralatan perlindungan bersesuaian dan peralatan pernafasan serba lengkap dengan penutup muka penuh dalam operasi mod tekanan positif.

Section 5. Firefighting measures

Hazchem code : •2YE

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Section 5. Firefighting measures

Specific hazards arising from the chemical	: Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Bahagian 6: Langkah-langkah pelepasan tidak sengaja

Langkah berjaga-jaga peribadi, peralatan pelindung dan prosedur kecemasan

Untuk kakitangan bukan kecemasan	: Jangan lakukan sebarang tindakan yang membabitkan risiko peribadi atau tanpa latihan yang sewajarnya. Kosongkan kawasan persekitaran. Halang kakitangan tidak berkaitan dan tidak dilindungi daripada masuk. Jangan sentuh atau jalan melalui bahan tertumpah. Tutup semua sumber pencucuhan. Tiada menyala, merokok atau nyalaan di kawasan bahaya. Elakkan menyedut wap atau kabus. Sediakan ventilasi yang mencukupi. Pakai alat pernafasan yang sesuai apabila ventilasi tidak mencukupi. Pakai peralatan perlindungan diri yang sesuai.
Untuk pasukan tindak balas kecemasan	: Jika pakaian khas diperlukan bagi mengendalikan tumpahan, perhatikan apa jua maklumat dalam Seksyen 8 tentang bahan yang sesuai dan tidak sesuai. Lihat juga maklumat dalam bahagian "Untuk kakitangan bukan kecemasan".
Peringatan alam sekitar	: Elakkan penyebaran bahan tertumpah dan aliran dan bersentuh dengan tanah, jalan air, longkang dan pembetung. Beritahu pihak berkuasa yang berkaitan jika produk menyebabkan pencemaran persekitaran (pembetung, aliran air, tanah atau udara). Bahan mencemar air. Boleh memudaratkan alam sekitar jika terlepas dalam jumlah yang banyak. Pungut kumpul tumpahan.

Kaedah dan bahan bagi pembendungan dan pembersihan

Kaedah pembersihan	: Hentikan kebocoran jika tidak berisiko. Alih bekas daripada kawasan tumpahan. Gunakan alat kalis percikan dan peralatan kalis letupan. Cairkan dengan air dan seka bersih jika terlarut air. Sebagai alternatif, atau jika tidak terlarut air, serap dengan bahan kering yang lengai dan isikan dalam bekas pelupusan bahan buangan yang wajar. Buang melalui kontraktor pelupusan sisa yang berlesen.
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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Bahagian 7: Pengendalian dan penyimpanan

Langkah berjaga-jaga bagi mengendalikan dengan selamat

Langkah perlindungan : Pakai kelengkapan perlindungan peribadi bersesuaian (Lihat Seksyen 8). Jangan inges. Elakkan tersentuh mata, kulit dan pakaian. Elakkan menyedut wap atau kabus. Elakkan pelepasan bahan ke persekitaran. Guna hanya dengan ventilasi mencukupi. Pakai alat pernafasan yang sesuai apabila ventilasi tidak mencukupi. Jangan masuki kawasan simpanan dan ruang-ruang terkurung kecuali ia mempunyai ventilasi yang mencukupi. Simpan di dalam bekas asal atau bekas lain yang diluluskan yang diperbuat daripada bahan yang sesuai, tutup ketat apabila tidak digunakan. Simpan dan guna jauh daripada haba, percikan api, nyalaan terbuka atau sebarang punca penyalan lain. Guna peralatan elektrik kalis letupan (ventilasi, pencahayaan dan mengendali bahan). Guna hanya alat yang tidak mengeluarkan percikan api. Ambil langkah peringatan terhadap nyahcas elektrostatik. Bekas kosong mengandungi sisa produk dan boleh menjadi berbahaya. Jangan guna semula bekas.

Nasihat tentang aturan kebersihan pekerjaan umum : Makan, minum dan menghisap rokok harus dilarang dalam kawasan di mana bahan ini dikendalikan, disimpan dan diproses. Para pekerja harus membasuh tangan dan muka sebelum makan, minum dan menghisap rokok. Tanggalkan pakaian yang tercemar dan peralatan perlindungan sebelum masuk tempat makan. Lihat juga Seksyen 8 untuk maklumat tambahan tentang langkah kebersihan.

Syarat-syarat bagi penyimpanan yang selamat, termasuk apa-apa ketakserasian : Simpan mengikut peraturan tempatan. Simpan di dalam kawasan yang berasingan dan dibenarkan. Simpan di dalam bekas asal yang terlindung dari pancaran terus cahaya matahari dalam kawasan kering, sejuk dan pengudaraan yang baik, jauh daripada bahan tidak sesuai (lihat Seksyen 10) dan makanan dan minuman. Simpan di tempat berkunci. Hapuskan semua sumber nyalaan. Asingkan daripada bahan pengoksida. Simpan bekas tertutup rapat dan terkedap sehingga sedia untuk diguna. Bekas yang telah dibuka mesti dikedap semula dengan teliti dan disimpan menegak untuk mencegah kebocoran. Jangan simpan dalam bekas tidak berlabel. Guna kaedah pengurangan yang sesuai untuk mengelakkan pencemaran alam sekitar. Lihat Bahagian 10 untuk bahan yang tidak serasi sebelum mengendali atau mengguna.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic

Section 7. Handling and storage

Advice on general occupational hygiene

discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Bahagian 8: Kawalan pendedahan dan perlindungan diri

Parameter kawalan

Had Pendedahan Pekerja

Nama Ramuan	Had-Had Pendedahan
Aseton	Jadual I USECHH 2000 (Malaysia, 4/2000) Purata berpemberat lapan jam 8 jam: 500 ppm. Purata berpemberat lapan jam 8 jam: 1187 mg/m ³ .
dichlorvos (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Diserap melalui kulit. Purata berpemberat lapan jam 8 jam: 0.1 ppm. Purata berpemberat lapan jam 8 jam: 0.9 mg/m ³ .
mevinphos (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Diserap melalui kulit. Purata berpemberat lapan jam 8 jam: 0.01 ppm. Purata berpemberat lapan jam 8 jam: 0.09 mg/m ³ .
atrazine (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Purata berpemberat lapan jam 8 jam: 5 mg/m ³ .
heptachlor (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Diserap melalui kulit. Purata berpemberat lapan jam 8 jam: 0.05 mg/m ³ .
malathion (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Diserap melalui kulit. Purata berpemberat lapan jam 8 jam: 10 mg/m ³ .
chlorpyrifos (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Diserap melalui kulit. Purata berpemberat lapan jam 8 jam: 0.2 mg/m ³ .
dieldrin (ISO)	Jadual I USECHH 2000 (Malaysia, 4/2000) Diserap melalui kulit. Purata berpemberat lapan jam 8 jam: 0.25 mg/m ³ .

Bahagian 8: Kawalan pendedahan dan perlindungan diri

3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione

coumaphos (ISO)

ACGIH TLV (Amerika Syarikat, 1/2024) A4.
TWA 8 jam: 3 mg/m³. Borang: Nisbah boleh sedut.

ACGIH TLV (Amerika Syarikat, 1/2024) A4.
Diserap melalui kulit.
TWA 8 jam: 0.05 mg/m³. Borang: Pecahan boleh disedut dan pecahan wap.

Indeks pendedahan biologi

Tiada indeks pendedahan yang diketahui.

Kawalan kejuruteraan yang wajar : Guna hanya dengan ventilasi mencukupi. Guna penutup proses, pengalihudaraan ekzos setempat atau kawalan kejuruteraan lain untuk memastikan pekerja hanya terdedah kepada bahan cemar bawaan udara di bawah apa-apa had yang dicadangkan atau had statutori. Kawalan kejuruteraan juga perlu memastikan kepekatan gas, wap atau debu di bawah sebarang had bahan letupan yang lebih rendah. Guna peralatan ventilasi kalis letupan.

Kawalan pendedahan alam sekitar : Pengeluaran daripada pengudaraan atau peralatan proses kerja hendaklah diperiksa untuk memastikan ianya mematuhi keperluan perundangan perlindungan alam sekitar. Bagi sesetengah kes, penyental wasap, penuras atau pengubahsuaian kejuruteraan terhadap peralatan proses adalah perlu bagi mengurangkan pengeluaran ke tahap yang dibenarkan.

Langkah-langkah perlindungan individu

Langkah-langkah kebersihan : Basuh kedua tangan, lengan dan muka sehingga bersih setelah mengendalikan produk kimia, sebelum makan, merokok dan menggunakan tandas dan pada akhir waktu kerja. Teknik yang sesuai harus digunakan apabila menanggalkan pakaian yang mungkin tercemar. Basuh pakaian tercemar sebelum memakai semula. Pastikan tempat mencuci mata dan pancuran air keselamatan berdekatan dengan lokasi tempat kerja.

Perlindungan mata/muka : Kacamata keselamatan yang mematuhi kelulusan piawai perlu digunakan apabila penilaian risiko menunjukkan ianya perlu untuk mengelakkan pendedahan kepada percikan cecair, kabu, gas atau debu. Jika sentuhan mungkin terjadi, perlindungan berikut harus dipakai, kecuali taksiran menunjukkan tahap perlindungan lebih tinggi: gogal percikan bahan kimia.

Perlindungan kulit

Perlindungan tangan : Sarung tangan kedap penentang bahan kimia, yang mematuhi piawaian yang diluluskan hendaklah dipakai pada setiap masa apabila mengendalikan produk kimia jika penilaian risiko menunjukkan ini adalah perlu. Dengan mempertimbangkan parameter yang ditetapkan oleh pengilang sarung tangan, pastikan semasa digunakan bahawa sarung tangan masih mengekalkan ciri-ciri perlindungannya. Harus diperhatikan bahawa jangka masa hingga terobos untuk mana-mana bahan sarung tangan mungkin berbeza mengikut pengilang sarung tangan. Bagi kes campuran, yang terdiri daripada beberapa zat, jangka masa perlindungan sarung tangan tidak dapat dianggarkan dengan tepat.

Perlindungan tubuh : Peralatan perlindungan peribadi untuk badan perlu dipilih berdasarkan tugas yang dilakukan dan risiko yang terlibat dan perlulah diluluskan oleh pakar sebelum mengendalikan produk ini. Jika ada risiko nyalaan daripada elektrik statik, pakai pakaian pelindung anti statik. Bagi perlindungan terbesar daripada nyahcas statik, pakaian harus termasuk baju senyawa anti statik, but dan sarung tangan.

Perlindungan kulit yang lain : Kasut yang wajar dan apa jua langkah tambahan bagi perlindungan kulit harus dipilih berdasarkan tugas yang dilakukan dan risiko yang terbabit, dan harus diluluskan oleh seorang pakar sebelum mengendalikan produk ini.

Perlindungan respiratori : Berdasarkan bahaya dan kemungkinan pendedahan, pilih respirator yang memenuhi standard atau pensijilan yang sewajarnya. Respirator harus digunakan mengikut program pelindung pernafasan bagi memastikan pemakaian dan latihan yang betul, serta aspek penggunaan lain yang penting.

Bahagian 8: Kawalan pendedahan dan perlindungan diri

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Acetone	Schedule I USECHH 2000 (Malaysia, 4/2000) TWA 8 hours: 500 ppm. TWA 8 hours: 1187 mg/m ³ .
Dichlorvos (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) Absorbed through skin. TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.9 mg/m ³ .
Mevinphos (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) Absorbed through skin. TWA 8 hours: 0.01 ppm. TWA 8 hours: 0.09 mg/m ³ .
Atrazine (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) TWA 8 hours: 5 mg/m ³ .
Heptachlor (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) Absorbed through skin. TWA 8 hours: 0.05 mg/m ³ .
Malathion (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) Absorbed through skin. TWA 8 hours: 10 mg/m ³ .
Chlorpyrifos (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) Absorbed through skin. TWA 8 hours: 0.2 mg/m ³ .
Dieldrin (ISO)	Schedule I USECHH 2000 (Malaysia, 4/2000) Absorbed through skin. TWA 8 hours: 0.25 mg/m ³ .
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	ACGIH TLV (United States, 1/2024) A4. TWA 8 hours: 3 mg/m ³ . Form: Inhalable fraction.
Coumaphos (ISO)	ACGIH TLV (United States, 1/2024) A4. Absorbed through skin. TWA 8 hours: 0.05 mg/m ³ . Form: Inhalable fraction and vapor.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Bahagian 9: Sifat fizikal dan kimia

Keadaan pengukuran semua sifat berada pada suhu dan tekanan standard kecuali dinyatakan sebaliknya.

Rupa

- Keadaan fizikal** : Cecair.
- Warna** : Tak berwarna.
- Bau** : Seperti pudina.
- Ambang Bau** : Tidak tersedia.
- pH** : Tidak tersedia.
- Takat lebur/takat beku** : -94.9°C (-138.8°F)
- Takat didih, takat didih awal, dan julat didih** : 56.5°C (133.7°F)
- Takat kilat** : Cawan tertutup: -17.8°C (-0.04°F)
- Kadar Penyejatan** : 6.06 (butil asetat = 1)
- Kemudahbakaran** : Tidak bekenaan.
- Had kemudahbakaran atas/bawah atau had letupan** : Lebih rendah: 2.6%
Atas: 12.8%
- Tekanan Wap** : 53.3 kPa (400 mm Hg) (@ 39.5°C [103.1 °F])
- Ketumpatan wap** : 2 [Udara = 1]
- Ketumpatan bandingan** : 0.791
- Ketumpatan** : 0.791 g/cm³

Bahagian 9: Sifat fizikal dan kimia

Keterlarutan	:	Media	Keputusan
		air	Terlarutkan

Boleh dicampur dengan air : Ya.

Pekali sekatan: n-oktanol/air : -0.24

Suhu pengautocucuhan : 465°C (869°F)

Suhu penguraian : Tidak tersedia.

Kelikatan : Dinamik (suhu bilik): Tidak tersedia.
Kinematik (suhu bilik): Tidak tersedia.
Kinematik (40°C (104°F)): Tidak tersedia.

Ciri-ciri zarah

Saiz zarah median : Tidak bekenaan.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Minty.

Odour threshold : Not available.

pH : Not available.

Melting point/freezing point : -94.9°C (-138.8°F)

Boiling point or initial boiling point and boiling range : 56.5°C (133.7°F)

Flash point : Closed cup: -17.8°C (-0.04°F)

Evaporation rate : 6.06 (butyl acetate = 1)

Flammability : Not applicable.

Lower and upper explosion limit/flammability limit : Lower: 2.6%
Upper: 12.8%

Vapour pressure : 53.3 kPa (400 mm Hg) (@ 39.5°C [103.1 °F])

Relative vapour density : 2 [Air = 1]

Relative density : 0.791

Density : 0.791 g/cm³

Solubility(ies)	:	Media	Result
		water	Soluble

Miscible with water : Yes.

Partition coefficient: n-octanol/water : -0.24

Auto-ignition temperature : 465°C (869°F)

Decomposition temperature : Not available.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): Not available.

Particle characteristics

Median particle size : Not applicable.

Bahagian 10: Kestabilan dan kereaktifan

Kereaktifan	: Tiada data ujian khusus berkaitan dengan kereaktifan bagi produk ini atau ramuannya.
Kestabilan bahan	: Produk ini stabil.
Kemungkinan berlakunya tindak balas berbahaya	: Dalam keadaan penyimpanan dan penggunaan yang normal, tindak balas berbahaya tidak akan terjadi.
Keadaan yang perlu dielak	: Elakkan semua sumber penyalaan yang mungkin (percikan api atau nyalaan). Jangan kenakan tekanan, potong, kimpal, pateri keras, pateri, gerudi, kisar atau dedahkan bekas kepada kepanasan atau sumber penyalaan. Elakkan wap terkumpul di kawasan rendah atau tertutup.
Bahan tidak serasi	: Reaktif atau tidak serasi dengan bahan yang berikut: bahan pengoksida
Produk penguraian berbahaya	: Di bawah keadaan penyimpanan dan penggunaan normal, produk penguraian berbahaya tidak akan terhasil.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidising materials
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Bahagian 11: Maklumat toksikologi

Maklumat tentang kesan toksikologi

Ketoksikan akut

Nama produk/bahan	Keputusan	
Aseton mevinphos (ISO)	Tikus - Oral - LD50	5800 mg/kg
	Tikus - Oral - LD50	3 mg/kg
	Tikus - Kulit - LD50	4200 µg/kg
	Arnab - Kulit - LD50	4700 µg/kg
	Tikus - Penyedutan - LC50 Wap	14 ppm [1 jam]
ethalfluralin	Tikus - Oral - LD50	>10000 mg/kg
trifluralin (ISO)	Tikus - Penyedutan - LC50 Debu dan Kabus	4980 mg/m ³ [4 jam]
	Tikus - Oral - LD50	1930 mg/kg
	Tikus - Kulit - LD50	>5 g/kg
atrazine (ISO)	Tikus - Penyedutan - LC50 Debu dan Kabus	2800 mg/m ³ [1 jam]
	Arnab - Kulit - LD50	7500 mg/kg
	Tikus - Oral - LD50	672 mg/kg

Bahagian 11: Maklumat toksikologi

heptachlor (ISO)	Tikus - Kulit - LD50	3 g/kg
malathion (ISO)	Tikus - Penyedutan - LC50 Debu dan Kabus	5200 mg/m ³ [4 jam]
	Arnab - Kulit - LD50	500 mg/kg
	Arnab - Kulit - LD50	4100 mg/kg
	Tikus - Oral - LD50	290 mg/kg
chlorpyrifos (ISO)	Tikus - Penyedutan - LC50 Debu dan Kabus	43790 µg/m ³ [4 jam]
	Tikus - Oral - LD50	82 mg/kg
	Tikus - Kulit - LD50	202 mg/kg
	Arnab - Kulit - LD50	2000 mg/kg
dieldrin (ISO)	Tikus - Oral - LD50	38300 µg/kg
2,2-bis(p-chlorophenyl)	Tikus - Oral - LD50	880 mg/kg
-1,1-dichloroethylene		
3-cyclohexyl-6-dimethylamino-1-methyl-	Tikus - Oral - LD50	1690 mg/kg
1,2,3,4-tetrahydro-1,3,5-triazine-		
2,4-dione		
	Tikus - Kulit - LD50	5278 mg/kg
	Arnab - Kulit - LD50	>5278 mg/kg
leptophos (ISO)	Tikus - Oral - LD50	19 mg/kg
	Arnab - Kulit - LD50	800 mg/kg
fenarimol (ISO)	Tikus - Oral - LD50	2500 mg/kg
coumaphos (ISO)	Tikus - Oral - LD50	13 mg/kg
	Tikus - Kulit - LD50	860 mg/kg
	Arnab - Kulit - LD50	500 mg/kg
deltamethrin (ISO)	Tikus - Oral - LD50	5.1 mg/kg
3-phenoxybenzyl-2-(4-ethoxyphenyl)	Tikus - Oral - LD50	>42800 mg/kg
-2-methylpropyl ether		

Kesimpulan/Ringkasan [Produk] : Tidak tersedia.

Kakisan atau kerengsaan kulit

Nama produk/bahan

Keputusan

Aseton	Arnab - Kulit - Zat merengsa ringan	Jangka masa rawatan/ pendedahan: 24 jam Jumlah/kepekatan yang diterapkan: 500 mg
	Arnab - Kulit - Zat merengsa ringan	Jumlah/kepekatan yang diterapkan: 395 mg
atrazine (ISO)	Arnab - Kulit - Zat merengsa ringan	Jumlah/kepekatan yang diterapkan: 38 mg

Kesimpulan/Ringkasan [Produk] : Pendedahan berulang mungkin mengakibatkan kekeringan atau keretakan kulit. Menyebabkan kerengsaan kulit sederhana.

Nama Ramuan

Kesimpulan/Ringkasan

Aseton	Pendedahan berulang mungkin mengakibatkan kekeringan atau keretakan kulit. Menyebabkan kerengsaan kulit sederhana.
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Kerosakan mata yang serius/kerengsaan mata

Nama produk/bahan

Keputusan

Aseton	Arnab - Mata - Zat merengsa ringan	Jumlah/kepekatan yang diterapkan: 10 uL
	Arnab - Mata - Iritan sederhana	Jangka masa rawatan/ pendedahan: 24 jam Jumlah/kepekatan yang diterapkan: 20 mg
atrazine (ISO)	Arnab - Mata - Iritan teruk	Jumlah/kepekatan

Bahagian 11: Maklumat toksikologi

3-cyclohexyl-6-dimethylamino-1-methyl-
1,2,3,4-tetrahydro-1,3,5-triazine-
2,4-dione

Arnab - Mata - Iritan sederhana

yang diterapkan: 6320
ug
Jumlah/kepekatan
yang diterapkan: 48
mg

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Kakisan/kerengsaan pernafasan

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Pemekaan kulit

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Pemekaan pernafasan

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Mutagenitas sel kuman

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Karsinogenisiti

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Toksisiti reproduktif

Kesimpulan/Ringkasan : Tidak tersedia.
[Produk]

Nama Ramuan

dieldrin (ISO)

Kesimpulan/Ringkasan

Pendedahan berulang atau berpanjangan kepada bahan boleh
merosakkan sistem pembiakan.

Ketoksikan organ sasaran khusus (pendedahan tunggal)

Nama produk/bahan

Aseton

ethalfluralin

2,2-bis(p-chlorophenyl)

-1,1-dichloroethylene

leptophos (ISO)

Keputusan

KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN TUNGGAL
(Kesan narkotik) - Kategori 3

KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN TUNGGAL
(Kerengsaan saluran pernafasan) - Kategori 3

KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN TUNGGAL
(Kerengsaan saluran pernafasan) - Kategori 3

KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN TUNGGAL
(sistem saraf) - Kategori 1

Ketoksikan organ sasaran khusus (pendedahan berulang)

Nama produk/bahan

Keputusan

Bahagian 11: Maklumat toksikologi

ethalfuralin	KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN BERULANG (sistem saraf) - Kategori 2
atrazine (ISO)	KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN BERULANG (jantung) (oral) - Kategori 2
heptachlor (ISO)	KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN BERULANG - Kategori 2
dieldrin (ISO)	KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN BERULANG - Kategori 1
coumaphos (ISO)	KETOKSIKAN ORGAN SASARAN KHUSUS - PENDEDAHAN BERULANG (sistem saraf) - Kategori 2

Bahaya penyedutan

Tidak tersedia.

Maklumat tentang laluan pendedahan yang berkemungkinan : Laluan kemasukan dijangkakan: Oral, Kulit, Penyedutan, Mata.

Kesan Kesihatan Akut Berpotensi

Sentuhan mata	: Menyebabkan kerengsaan mata yang serius.
Penyedutan	: Boleh menyebabkan depresi sistem saraf pusat. Boleh menyebabkan mengantuk atau kepeningan.
Sentuhan kulit	: Tiada kesan yang penting atau bahaya kritikal yang diketahui.
Pengingesan	: Boleh menyebabkan depresi sistem saraf pusat.

Gejala yang berkaitan dengan ciri fizikal, kimia dan toksikologi

Sentuhan mata	: Gejala yang teruk boleh termasuk yang berikut: kesakitan atau kerengsaan berair kemerahan
Penyedutan	: Gejala yang teruk boleh termasuk yang berikut: mual atau muntah sakit kepala mengantuk/letih pening/vertigo tidak sedar
Sentuhan kulit	: Tiada data spesifik.
Pengingesan	: Tiada data spesifik.

Kesan tertunda dan serta merta, dan juga kesan kronik akibat pendedahan jangka pendek dan panjang

Pendedahan jangka pendek

Kesan serta merta yang berpotensi	: Tidak tersedia.
Kesan tertunda yang berpotensi	: Tidak tersedia.

Pendedahan jangka panjang

Kesan serta merta yang berpotensi	: Tidak tersedia.
Kesan tertunda yang berpotensi	: Tidak tersedia.

Kesan Kesihatan Kronik Berpotensi

Kesimpulan/Ringkasan [Produk]	: Tidak tersedia.
Am	: Tiada kesan yang penting atau bahaya kritikal yang diketahui.

Bahagian 11: Maklumat toksikologi

- Karsinogenisiti** : Tiada kesan yang penting atau bahaya kritikal yang diketahui.
- Mutagenisiti** : Tiada kesan yang penting atau bahaya kritikal yang diketahui.
- Toksiti reproduktif** : Tiada kesan yang penting atau bahaya kritikal yang diketahui.

Ukuran ketoksikan secara angka

Anggaran ketoksikan akut

Nama produk/bahan	Oral (mg/kg)	Kulit (mg/kg)	Penyedutan (gas) (ppm)	Penyedutan (wap) (mg/l)	Penyedutan (habuk dan kabus) (mg/l)
Aseton	5800	20000	N/A	76	N/A
dichlorvos (ISO)	100	300	N/A	N/A	0.05
mevinphos (ISO)	5	4.2	N/A	N/A	N/A
ethalfluralin	N/A	N/A	N/A	N/A	4.98
trifluralin (ISO)	1930	N/A	N/A	N/A	0.7
atrazine (ISO)	672	3000	N/A	N/A	5.2
heptachlor (ISO)	100	500	N/A	N/A	N/A
malathion (ISO)	500	4100	N/A	N/A	0.04379
chlorpyrifos (ISO)	82	202	N/A	N/A	N/A
dieldrin (ISO)	100	5	N/A	N/A	N/A
2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	880	300	N/A	3	N/A
3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	1690	5278	N/A	N/A	N/A
leptophos (ISO)	19	800	N/A	N/A	N/A
fenarimol (ISO)	2500	N/A	N/A	N/A	N/A
coumaphos (ISO)	13	500	N/A	N/A	N/A
deltamethrin (ISO)	100	N/A	N/A	N/A	0.5

Maklumat lain : Gejala yang teruk boleh termasuk yang berikut: Bilangan darah terubah.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
Acetone	Rat - Oral - LD50
Mevinphos (ISO)	5800 mg/kg
	Rat - Oral - LD50
	3 mg/kg
	Rat - Dermal - LD50
	4200 µg/kg
	Rabbit - Dermal - LD50
	4700 µg/kg
	Rat - Inhalation - LC50 Vapour
	14 ppm [1 hours]
Ethalfluralin	Rat - Oral - LD50
	>10000 mg/kg
	Rat - Inhalation - LC50 Dusts and mists
	4980 mg/m ³ [4 hours]
Trifluralin (ISO)	Rat - Oral - LD50
	1930 mg/kg
	Rat - Dermal - LD50
	>5 g/kg
	Rat - Inhalation - LC50 Dusts and mists
	2800 mg/m ³ [1 hours]
Atrazine (ISO)	Rabbit - Dermal - LD50
	7500 mg/kg
	Rat - Oral - LD50
	672 mg/kg
	Rat - Dermal - LD50
	3 g/kg
	Rat - Inhalation - LC50 Dusts and mists
	5200 mg/m ³ [4 hours]
Heptachlor (ISO)	Rabbit - Dermal - LD50
	500 mg/kg
Malathion (ISO)	Rabbit - Dermal - LD50
	4100 mg/kg
	Rat - Oral - LD50
	290 mg/kg
	Rat - Inhalation - LC50 Dusts and mists
	43790 µg/m ³ [4 hours]
Chlorpyrifos (ISO)	Rat - Oral - LD50
	82 mg/kg
	Rat - Dermal - LD50
	202 mg/kg
	Rabbit - Dermal - LD50
	2000 mg/kg

Section 11. Toxicological information

Dieldrin (ISO)	Rat - Oral - LD50	38300 µg/kg
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene	Rat - Oral - LD50	880 mg/kg
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	Rat - Oral - LD50	1690 mg/kg
	Rat - Dermal - LD50	5278 mg/kg
	Rabbit - Dermal - LD50	>5278 mg/kg
Leptophos (ISO)	Rat - Oral - LD50	19 mg/kg
	Rabbit - Dermal - LD50	800 mg/kg
Fenarimol (ISO)	Rat - Oral - LD50	2500 mg/kg
Coumaphos (ISO)	Rat - Oral - LD50	13 mg/kg
	Rat - Dermal - LD50	860 mg/kg
	Rabbit - Dermal - LD50	500 mg/kg
Deltamethrin (ISO)	Rat - Oral - LD50	5.1 mg/kg
3-Phenoxybenzyl-2-(4-ethoxyphenyl)-2-methylpropyl ether	Rat - Oral - LD50	>42800 mg/kg

Conclusion/Summary [Product] : Not available.

Skin irritation/corrosivity

Product/ingredient name	Result	
Acetone	Rabbit - Skin - Mild irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 500 mg
	Rabbit - Skin - Mild irritant	Amount/concentration applied: 395 mg
Atrazine (ISO)	Rabbit - Skin - Mild irritant	Amount/concentration applied: 38 mg

Conclusion/Summary [Product] : Repeated exposure may cause skin dryness or cracking.
Causes mild skin irritation.

Ingredient name

Acetone

Conclusion/Summary

Repeated exposure may cause skin dryness or cracking.
Causes mild skin irritation.

Serious eye damage/eye irritation

Product/ingredient name	Result	
Acetone	Rabbit - Eyes - Mild irritant	Amount/concentration applied: 10 µL
	Rabbit - Eyes - Moderate irritant	Duration of treatment/ exposure: 24 hours Amount/concentration applied: 20 mg
Atrazine (ISO)	Rabbit - Eyes - Severe irritant	Amount/concentration applied: 6320 µg
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	Rabbit - Eyes - Moderate irritant	Amount/concentration applied: 48 mg

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Conclusion/Summary [Product] : Not available.

Skin sensitisation

Section 11. Toxicological information

Conclusion/Summary : Not available.
[Product]

Respiratory sensitisation

Not available.

Conclusion/Summary : Not available.
[Product]

Germ cell mutagenicity

Conclusion/Summary : Not available.
[Product]

Carcinogenicity

Conclusion/Summary : Not available.
[Product]

Reproductive toxicity

Conclusion/Summary : Not available.
[Product]

Ingredient name

Dieldrin (ISO)

Conclusion/Summary

Repeated or prolonged exposure to the substance can produce reproductive system damage.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Acetone	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
Ethalfuralin	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
Leptophos (ISO)	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (nervous system) - Category 1

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Ethalfuralin	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (nervous system) - Category 2
Atrazine (ISO)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (heart) (oral) - Category 2
Heptachlor (ISO)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
Dieldrin (ISO)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
Coumaphos (ISO)	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (nervous system) - Category 2

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Section 11. Toxicological information

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

- Conclusion/Summary [Product]** : Not available.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
acetone	5800	20000	N/A	76	N/A
dichlorvos (ISO)	100	300	N/A	N/A	0.05
mevinphos (ISO)	5	4.2	N/A	N/A	N/A
Ethalfuralin	N/A	N/A	N/A	N/A	4.98
Trifluralin (ISO)	1930	N/A	N/A	N/A	0.7
Atrazine (ISO)	672	3000	N/A	N/A	5.2
heptachlor (ISO)	100	500	N/A	N/A	N/A
Malathion (ISO)	500	4100	N/A	N/A	0.04379
Chlorpyrifos (ISO)	82	202	N/A	N/A	N/A

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dieldrin (ISO)	100	5	N/A	N/A	N/A
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene	880	300	N/A	3	N/A
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	1690	5278	N/A	N/A	N/A
Leptophos (ISO)	19	800	N/A	N/A	N/A
Fenarimol (ISO)	2500	N/A	N/A	N/A	N/A
Coumaphos (ISO)	13	500	N/A	N/A	N/A
deltamethrin (ISO)	100	N/A	N/A	N/A	0.5

Other information : Adverse symptoms may include the following: altered blood counts.

Bahagian 12: Maklumat ekologi

Ketoksikan

Nama produk/bahan

Keputusan

Aseton	Akut - EC50 - Air tawar	7200 mg/l [96 jam]	Alga - Green algae - <i>Selenastrum sp.</i>
	Kronik - NOEC - Air laut	4.95 mg/l [96 jam]	Alga - Green algae - <i>Ulva pertusa</i>
	Kronik - NOEC - Air tawar	0.016 ml/l [21 hari]	Crustacea - Daphnia - <i>Daphniidae</i>
	Akut - LC50 - Air laut	4.42589 ml/l [48 jam]	Crustacea - Calanoid copepod - <i>Acartia tonsa</i> - Kopepodid
	Akut - LC50 - Air tawar	5600 ppm [96 jam]	Ikan - Guppy - <i>Poecilia reticulata</i>
dichlorvos (ISO)	Akut - LC50 - Air tawar	2.5 µg/l [96 jam]	Ikan - Striped catfish - <i>Mystus vittatus</i>
	Akut - LC50 - Air tawar	0.13 µg/l [48 jam]	Crustacea - Water flea - <i>Ceriodaphnia dubia</i>
	Kronik - NOEC	5.2 ppb [61 hari]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Kronik - NOEC - Air laut	6.66 µg/l [21 hari]	Crustacea - Opossum shrimp - <i>Americamysis bahia</i> - Juvenil (Anak boleh terbang, Anak tetasan, Anak cerai susu)
	Akut - IC50 - Air tawar	110 mg/l [96 jam]	Alga - Green algae - <i>Raphidocelis subcapitata</i>
mevinphos (ISO)	Kronik - NOEC - Air tawar	239 mg/l [96 jam]	Alga - Green algae - <i>Raphidocelis subcapitata</i>
	Akut - EC50 - Air tawar	0.16 µg/l [48 jam]	Dafnia - Water flea - <i>Daphnia pulex</i> - Larva
	Akut - LC50 - Air tawar	41.77 ppb [96 jam]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
ethalfuralin	Kronik - NOEC - Air tawar	23.7 ppb [21 hari]	Dafnia - Water flea - <i>Daphnia magna</i>
	Akut - EC50 - Air tawar	60 ppb [48 jam]	Dafnia - Water flea - <i>Daphnia magna</i>
	Akut - LC50 - Air tawar	32 ppb [96 jam]	Ikan - Bluegill - <i>Lepomis macrochirus</i>
	Kronik - NOEC	0.4 ppb [50 hari]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
trifluralin (ISO)	Akut - LC50 - Air tawar	50 µg/l [48 jam]	Crustacea - Cyclopoid copepod - <i>Eucyclops sp.</i>

Bahagian 12: Maklumat ekologi

atrazine (ISO)	Akut - LC50 - Air laut	21 µg/l [96 jam]	Ikan - Red sea bream - <i>Pagrus major</i>
	Kronik - NOEC - Air tawar	50.7 ppb [21 hari]	Dafnia - Water flea - <i>Daphnia magna</i>
	Kronik - NOEC	0.3 ppb [35 hari]	Ikan - Fathead minnow - <i>Pimephales promelas</i>
	Kronik - EC10	0.45 µg/l [4 hari]	Alga - Green algae - <i>Desmodesmus subspicatus</i>
	Akut - EC50	6.5 µg/l [4 hari]	Alga - Diatom - <i>Fistulifera pelliculosa</i>
	Akut - EC50 - Air tawar	240 µg/l [48 jam]	Dafnia - Water flea - <i>Daphnia pulex</i>
	Kronik - NOEC - Air tawar	0.26 ppb [16 minggu]	Ikan - Guppy - <i>Poecilia reticulata</i> - Dewasa
	Akut - LC50 - Air tawar	1.25 ppm [96 jam]	Ikan - Carnatic Carp - <i>Barbodes carnaticus</i>
chlorpyrifos-methyl	Kronik - NOEC - Air tawar	25 µg/l [21 hari]	Crustacea - Water flea - <i>Ceriodaphnia sp.</i>
	Akut - EC50 - Air tawar	0.004 mg/l [96 jam]	Alga - Green algae - <i>Raphidocelis subcapitata</i>
	Kronik - NOEC - Air tawar	0.0005 mg/l [96 jam]	Alga - Green algae - <i>Raphidocelis subcapitata</i>
	Akut - LC50 - Air tawar	12.6 ppb [96 jam]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Akut - EC50 - Air laut	0.000028 ppm [48 jam]	Crustacea - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenil (Anak boleh terbang, Anak tetasan, Anak cerai susu)
	Akut - EC50	390 µg/l [96 jam]	Alga - Haptophyte - <i>Tisochrysis lutea</i> - Fasa pertumbuhan eksponen
	Akut - LC50 - Air laut	0.8 µg/l [96 jam]	Ikan - Bluehead wrasse - <i>Thalassoma bifasciatum</i>
	Akut - EC50 - Air tawar	26.7 µg/l [96 jam]	Alga - Green algae - <i>Raphidocelis subcapitata</i>
malathion (ISO)	Akut - EC50 - Air laut	0.00015 ppm [48 jam]	Crustacea - Northern pink shrimp - <i>Farfantepenaeus duorarum</i>
	Akut - EC50 - Air tawar	0.5 µg/l [48 jam]	Crustacea - Water flea - <i>Ceriodaphnia dubia</i> - Neonat
	Akut - LC50 - Air tawar	11.676 ng/l [96 jam]	Ikan - Indian catfish - <i>Heteropneustes fossilis</i>
	Kronik - NOEC	21 ppb [97 hari]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Kronik - NOEC - Air tawar	0.06 ppb [21 hari]	Dafnia - Water flea - <i>Daphnia magna</i>
	Kronik - NOEC - Air tawar	34 mg/l [72 jam]	Alga - Flagellate Euglenoid - <i>Euglena gracilis</i>

Bahagian 12: Maklumat ekologi

chlorpyrifos (ISO)	Akut - LC50 - Air laut	0.4 µg/l [96 jam]	Ikan - Tidewater silverside - <i>Menidia peninsulae</i>
	Akut - EC50 - Air laut	138 µg/l [96 jam]	Alga - Haptophyte - <i>Isochrysis galbana</i>
	Kronik - NOEC - Air tawar	0.21 ppb [30 hari]	Ikan - Walking catfish - <i>Clarias batrachus</i>
	Kronik - NOEC - Air tawar	0.01 µg/l [21 hari]	Dafnia - Water flea - <i>Daphnia magna</i> - Neonat
	Akut - EC50 - Air tawar	32.4 ng/l [48 jam]	Dafnia - Water flea - <i>Daphnia magna</i> - Neonat
	Kronik - EC10 - Air laut	132 µg/l [72 jam]	Alga - Haptophyte - <i>Tisochrysis lutea</i> - Fasa pertumbuhan eksponen
dieldrin (ISO)	Akut - LC50 - Air tawar	0.62 µg/l [96 jam]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> - Juvenil (Anak boleh terbang, Anak tetasan, Anak cerai susu)
	Kronik - NOEC - Air tawar	0.032 mg/l [21 hari]	Dafnia - Water flea - <i>Daphnia magna</i>
	Kronik - NOEC - Air laut	0.0001 mg/l [8 minggu]	Ikan - Plaice, sand dab - <i>Pleuronectes platessa</i> - Telur
	Akut - EC50 - Air laut	0.00028 ppm [48 jam]	Crustacea - Northern pink shrimp - <i>Farfantepenaeus duorarum</i>
2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	Akut - EC50 - Air laut	28 µg/l [48 jam]	Crustacea - Brown shrimp - <i>Penaeus aztecus</i> - Dewasa
	Kronik - NOEC - Air tawar	0.1 µg/l [28 hari]	Ikan - Chinese Rare Minnow - <i>Gobiocypris rarus</i> - Matang seks
3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	Kronik - NOEC - Air tawar	85.5 µg/l [396 hari]	Ikan - Atlantic salmon - <i>Salmo salar</i> - Larva kantung yolka
	Kronik - NOEC - Air tawar	0.1 mg/l [21 hari]	Crustacea - Copepod Subclass - <i>Copepoda</i>
	Akut - LC50 - Air tawar	146.7 ppm [96 jam]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Akut - LC50 - Air tawar	71.6 mg/l [48 jam]	Crustacea - Signal crayfish - <i>Pacifastacus leniusculus</i> - Juvenil (Anak boleh terbang, Anak tetasan, Anak cerai susu)
	Akut - IC50 - Air laut	4.4 µg/l [72 jam]	Tumbuhan akuatik - Eel Grass - <i>Zostera muelleri</i>
	Kronik - NOEC - Air laut	0.37 µg/l [72 jam]	Tumbuhan akuatik - Eel Grass - <i>Halodule uninervis</i>
	Akut - LC50 - Air laut	4.06 µg/l [96 jam]	Ikan - Spot - <i>Leiostomus xanthurus</i> - Juvenil (Anak boleh terbang, Anak tetasan,

Bahagian 12: Maklumat ekologi

fenarimol (ISO)	Akut - LC50 - Air tawar	5.213 µg/l [48 jam]	Anak cerai susu)
	Kronik - NOEC - Air tawar	0.113 ppm [21 hari]	Crustacea - Shrimp - <i>Paratya australiensis</i>
	Akut - LC50 - Air tawar	0.9 ppm [96 jam]	Dafnia - Water flea - <i>Daphnia magna</i>
	Akut - EC50 - Air tawar	2.6 ppm [96 jam]	Ikan - Bluegill - <i>Lepomis macrochirus</i>
coumaphos (ISO)	Kronik - NOEC	0.43 ppm [69 hari]	Alga - Green algae - <i>Desmodesmus subspicatus</i>
	Akut - LC50 - Air tawar	150 µg/l [96 jam]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Akut - LC50 - Air tawar	0.14 µg/l [48 jam]	Ikan - Bluegill - <i>Lepomis macrochirus</i>
	Kronik - NOEC	11.7 ppb [62 hari]	Crustacea - Scud - <i>Gammarus lacustris</i>
deltamethrin (ISO)	Kronik - NOEC - Air tawar	0.034 ppb [21 hari]	Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Akut - LC50 - Air tawar	0.102 µg/l [96 jam]	Dafnia - Water flea - <i>Daphnia magna</i>
	Akut - EC50 - Air tawar	2.56 mg/l [72 jam]	Ikan - Carp - <i>Cyprinus carpio ssp. communis</i> - Anak ikan
	Akut - LC50 - Air tawar	4 ng/l [48 jam]	Alga - Green algae - <i>Desmodesmus subspicatus</i>
3-phenoxybenzyl-2-(4-ethoxyphenyl)-2-methylpropyl ether	Kronik - NOEC - Air tawar	0.0039 µg/l [60 hari]	Crustacea - Scud - <i>Gammarus fossarum</i> - Juvenil (Anak boleh terbang, Anak tetasan, Anak cerai susu)
	Kronik - NOEC - Air tawar	0.0041 ppb [21 hari]	Ikan - Tench - <i>Tinca tinca</i> - Dewasa
	Kronik - NOEC	0.103 ppb [21 hari]	Dafnia - Water flea - <i>Daphnia magna</i>
	Akut - LC50 - Air tawar	2.36 ppb [96 jam]	Dafnia - Water flea - <i>Daphnia magna</i>
	Akut - EC50 - Air tawar	0.57 ppb [48 jam]	Ikan - Bluegill - <i>Lepomis macrochirus</i>
	Kronik - NOEC	0.67 ppb [90 hari]	Dafnia - Water flea - <i>Daphnia magna</i>
			Ikan - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>

Kesimpulan/Ringkasan [Produk] : Tidak tersedia.

Kegigihan dan degradasi

Nama produk/bahan

Keputusan

atrazine (ISO) - 9.86% [28 hari] - Tidak mudah

Kesimpulan/Ringkasan [Produk] : Tidak tersedia.

Nama produk/bahan	Separuh hayat Akuatik	Fotolisis	Sifat biorosot
Aseton	-	-	Dengan mudah
atrazine (ISO)	-	-	Tidak mudah

Bahagian 12: Maklumat ekologi

Potensi bioakumulasi

Nama produk/bahan	LogP _{ow}	BCF	Berpotensi
Pesticide Analyzer Checkout Solution	-0.24	-	Rendah
Aseton	-0.23	3	Rendah
dichlorvos (ISO)	1.43	0.5	Rendah
mevinphos (ISO)	0.13	-	Rendah
ethalfluralin	5.11	-	Tinggi
trifluralin (ISO)	5.34	2290.87	Tinggi
atrazine (ISO)	2.59	7.94	Rendah
chlorpyrifos-methyl	4.31	-	Tinggi
heptachlor (ISO)	6.1	8709.64	Tinggi
malathion (ISO)	2.36	33.11	Rendah
chlorpyrifos (ISO)	4.96	1513.56	Tinggi
dieldrin (ISO)	5.4	8912.51	Tinggi
2,2-bis(p-chlorophenyl)-1,1-dichloroethylene	6.51	12022.64	Tinggi
3-cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	1.85	-	Rendah
leptophos (ISO)	6.31	6025.6	Tinggi
fenarimol (ISO)	3.6	-	Rendah
coumaphos (ISO)	4.13	-	Tinggi
deltamethrin (ISO)	6.2	323.59	Rendah
3-phenoxybenzyl-2-(4-ethoxyphenyl)-2-methylpropyl ether	7.05	3951	Tinggi

Mobiliti tanah

Pekali Sekatan Tanah/Air : Tidak tersedia.

Kesan-kesan buruk lain : Tiada kesan yang penting atau bahaya kritikal yang diketahui.

Section 12. Ecological information

Toxicity

Product/ingredient name

Result

Acetone	Acute - EC50 - Fresh water	7200 mg/l [96 hours]	Algae - Green algae - <i>Selenastrum sp.</i>
	Chronic - NOEC - Marine water	4.95 mg/l [96 hours]	Algae - Green algae - <i>Ulva pertusa</i>
	Chronic - NOEC - Fresh water	0.016 ml/l [21 days]	Crustaceans - Daphnia - <i>Daphniidae</i>
	Acute - LC50 - Marine water	4.42589 ml/l [48 hours]	Crustaceans - Calanoid copepod - <i>Acartia tonsa</i> - Copepodid
	Acute - LC50 - Fresh water	5600 ppm [96 hours]	Fish - Guppy - <i>Poecilia reticulata</i>
Dichlorvos (ISO)	Acute - LC50 - Fresh water	2.5 µg/l [96 hours]	Fish - Striped catfish - <i>Mystus vittatus</i>
	Acute - LC50 - Fresh water	0.13 µg/l [48 hours]	Crustaceans - Water flea - <i>Ceriodaphnia dubia</i>
	Chronic - NOEC	5.2 ppb [61 days]	Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>

Section 12. Ecological information

Mevinphos (ISO)	Chronic - NOEC - Marine water	6.66 µg/l [21 days]	Crustaceans - Opossum shrimp - <i>Americamysis bahia</i> - Juvenile (Fledgling, Hatchling, Weanling) Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Daphnia - Water flea - <i>Daphnia pulex</i> - Larvae Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Daphnia - Water flea - <i>Daphnia magna</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Bluegill - <i>Lepomis macrochirus</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Acute - IC50 - Fresh water	110 mg/l [96 hours]	
	Chronic - NOEC - Fresh water	239 mg/l [96 hours]	
	Acute - EC50 - Fresh water	0.16 µg/l [48 hours]	
Ethalfuralin	Acute - LC50 - Fresh water	41.77 ppb [96 hours]	Crustaceans - Cyclopoid copepod - <i>Eucyclops sp.</i> Fish - Red sea bream - <i>Pagrus major</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Fathead minnow - <i>Pimephales promelas</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Algae - Diatom - <i>Fistulifera pelliculosa</i> Daphnia - Water flea - <i>Daphnia pulex</i> Fish - Guppy - <i>Poecilia reticulata</i> - Adult Fish - Carnatic Carp - <i>Barbodes carnaticus</i> Crustaceans - Water flea - <i>Ceriodaphnia sp.</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenile (Fledgling, Hatchling, Weanling)
	Chronic - NOEC - Fresh water	23.7 ppb [21 days]	
	Acute - EC50 - Fresh water	60 ppb [48 hours]	
	Acute - LC50 - Fresh water	32 ppb [96 hours]	
Trifluralin (ISO)	Chronic - NOEC	0.4 ppb [50 days]	Crustaceans - Cyclopoid copepod - <i>Eucyclops sp.</i> Fish - Red sea bream - <i>Pagrus major</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Fathead minnow - <i>Pimephales promelas</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Algae - Diatom - <i>Fistulifera pelliculosa</i> Daphnia - Water flea - <i>Daphnia pulex</i> Fish - Guppy - <i>Poecilia reticulata</i> - Adult Fish - Carnatic Carp - <i>Barbodes carnaticus</i> Crustaceans - Water flea - <i>Ceriodaphnia sp.</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - LC50 - Fresh water	50 µg/l [48 hours]	
	Acute - LC50 - Marine water	21 µg/l [96 hours]	
	Chronic - NOEC - Fresh water	50.7 ppb [21 days]	
Atrazine (ISO)	Chronic - NOEC	0.3 ppb [35 days]	Crustaceans - Cyclopoid copepod - <i>Eucyclops sp.</i> Fish - Red sea bream - <i>Pagrus major</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Fathead minnow - <i>Pimephales promelas</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Algae - Diatom - <i>Fistulifera pelliculosa</i> Daphnia - Water flea - <i>Daphnia pulex</i> Fish - Guppy - <i>Poecilia reticulata</i> - Adult Fish - Carnatic Carp - <i>Barbodes carnaticus</i> Crustaceans - Water flea - <i>Ceriodaphnia sp.</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenile (Fledgling, Hatchling, Weanling)
	Chronic - EC10	0.45 µg/l [4 days]	
	Acute - EC50	6.5 µg/l [4 days]	
	Acute - EC50 - Fresh water	240 µg/l [48 hours]	
Chlorpyrifos-methyl	Chronic - NOEC - Fresh water	0.26 ppb [16 weeks]	Crustaceans - Cyclopoid copepod - <i>Eucyclops sp.</i> Fish - Red sea bream - <i>Pagrus major</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Fathead minnow - <i>Pimephales promelas</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Algae - Diatom - <i>Fistulifera pelliculosa</i> Daphnia - Water flea - <i>Daphnia pulex</i> Fish - Guppy - <i>Poecilia reticulata</i> - Adult Fish - Carnatic Carp - <i>Barbodes carnaticus</i> Crustaceans - Water flea - <i>Ceriodaphnia sp.</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - LC50 - Fresh water	1.25 ppm [96 hours]	
	Chronic - NOEC - Fresh water	25 µg/l [21 days]	
	Acute - EC50 - Fresh water	0.004 mg/l [96 hours]	
Chlorpyrifos-methyl	Chronic - NOEC - Fresh water	0.0005 mg/l [96 hours]	Crustaceans - Cyclopoid copepod - <i>Eucyclops sp.</i> Fish - Red sea bream - <i>Pagrus major</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Fathead minnow - <i>Pimephales promelas</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Algae - Diatom - <i>Fistulifera pelliculosa</i> Daphnia - Water flea - <i>Daphnia pulex</i> Fish - Guppy - <i>Poecilia reticulata</i> - Adult Fish - Carnatic Carp - <i>Barbodes carnaticus</i> Crustaceans - Water flea - <i>Ceriodaphnia sp.</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - LC50 - Fresh water	12.6 ppb [96 hours]	
Chlorpyrifos-methyl	Acute - EC50 - Marine water	0.000028 ppm [48 hours]	Crustaceans - Cyclopoid copepod - <i>Eucyclops sp.</i> Fish - Red sea bream - <i>Pagrus major</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Fathead minnow - <i>Pimephales promelas</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Algae - Diatom - <i>Fistulifera pelliculosa</i> Daphnia - Water flea - <i>Daphnia pulex</i> Fish - Guppy - <i>Poecilia reticulata</i> - Adult Fish - Carnatic Carp - <i>Barbodes carnaticus</i> Crustaceans - Water flea - <i>Ceriodaphnia sp.</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Algae - Green algae - <i>Raphidocelis subcapitata</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i> - Juvenile (Fledgling, Hatchling, Weanling)
	Acute - EC50 - Marine water	0.000028 ppm [48 hours]	

Section 12. Ecological information

	Acute - EC50	390 µg/l [96 hours]	Algae - Haptophyte - <i>Tisochrysis lutea</i> - Exponential growth phase
Heptachlor (ISO)	Acute - LC50 - Marine water	0.8 µg/l [96 hours]	Fish - Bluehead wrasse - <i>Thalassoma bifasciatum</i>
	Acute - EC50 - Fresh water	26.7 µg/l [96 hours]	Algae - Green algae - <i>Raphidocelis subcapitata</i>
	Acute - EC50 - Marine water	0.00015 ppm [48 hours]	Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i>
Malathion (ISO)	Acute - EC50 - Fresh water	0.5 µg/l [48 hours]	Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - Neonate
	Acute - LC50 - Fresh water	11.676 ng/l [96 hours]	Fish - Indian catfish - <i>Heteropneustes fossilis</i>
	Chronic - NOEC	21 ppb [97 days]	Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i>
	Chronic - NOEC - Fresh water	0.06 ppb [21 days]	Daphnia - Water flea - <i>Daphnia magna</i>
	Chronic - NOEC - Fresh water	34 mg/l [72 hours]	Algae - Flagellate Euglenoid - <i>Euglena gracilis</i>
Chlorpyrifos (ISO)	Acute - LC50 - Marine water	0.4 µg/l [96 hours]	Fish - Tidewater silverside - <i>Menidia peninsulae</i>
	Acute - EC50 - Marine water	138 µg/l [96 hours]	Algae - Haptophyte - <i>Isochrysis galbana</i>
	Chronic - NOEC - Fresh water	0.21 ppb [30 days]	Fish - Walking catfish - <i>Clarias batrachus</i>
	Chronic - NOEC - Fresh water	0.01 µg/l [21 days]	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate
	Acute - EC50 - Fresh water	32.4 ng/l [48 hours]	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate
	Chronic - EC10 - Marine water	132 µg/l [72 hours]	Algae - Haptophyte - <i>Tisochrysis lutea</i> - Exponential growth phase
	Acute - LC50 - Fresh water	0.62 µg/l [96 hours]	Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> - Juvenile (Fledgling, Hatchling, Weanling)
Dieldrin (ISO)	Chronic - NOEC - Fresh water	0.032 mg/l [21 days]	Daphnia - Water flea - <i>Daphnia magna</i>
	Chronic - NOEC - Marine water	0.0001 mg/l [8 weeks]	Fish - Plaice, sand dab - <i>Pleuronectes platessa</i> - Egg
	Acute - EC50 - Marine water	0.00028 ppm [48 hours]	Crustaceans - Northern pink shrimp - <i>Farfantepenaeus duorarum</i>
	Acute - EC50 - Marine water	28 µg/l [48 hours]	Crustaceans - Brown shrimp - <i>Penaeus aztecus</i> - Adult
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene	Chronic - NOEC - Fresh water	0.1 µg/l [28 days]	Fish - Chinese Rare

Section 12. Ecological information

	water			Minnow - <i>Gobiocypris rarus</i> - Sexually mature Fish - Atlantic salmon - <i>Salmo salar</i> - Yolk-sac larvae Crustaceans - Copepod Subclass - <i>Copepoda</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Crustaceans - Signal crayfish - <i>Pacifastacus leniusculus</i> - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Eel Grass - <i>Zostera muelleri</i> Aquatic plants - Eel Grass - <i>Halodule uninervis</i> Fish - Spot - <i>Leiostomus xanthurus</i> - Juvenile (Fledgling, Hatchling, Weanling) Crustaceans - Shrimp - <i>Paratya australiensis</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Bluegill - <i>Lepomis macrochirus</i> Algae - Green algae - <i>Desmodesmus subspicatus</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Fish - Bluegill - <i>Lepomis macrochirus</i> Crustaceans - Scud - <i>Gammarus lacustris</i> Fish - Rainbow trout, donaldson trout - <i>Oncorhynchus mykiss</i> Daphnia - Water flea - <i>Daphnia magna</i> Fish - Carp - <i>Cyprinus carpio ssp. communis</i> - Fry Algae - Green algae - <i>Desmodesmus subspicatus</i> Crustaceans - Scud - <i>Gammarus fossarum</i> - Juvenile (Fledgling, Hatchling, Weanling) Fish - Tench - <i>Tinca tinca</i> - Adult Daphnia - Water flea - <i>Daphnia magna</i> Daphnia - Water flea -
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	Chronic - NOEC - Fresh water	85.5 µg/l [396 days]		
	Chronic - NOEC - Fresh water	0.1 mg/l [21 days]		
	Acute - LC50 - Fresh water	146.7 ppm [96 hours]		
	Acute - LC50 - Fresh water	71.6 mg/l [48 hours]		
	Acute - IC50 - Marine water	4.4 µg/l [72 hours]		
	Chronic - NOEC - Marine water	0.37 µg/l [72 hours]		
Leptophos (ISO)	Acute - LC50 - Marine water	4.06 µg/l [96 hours]		
Fenarimol (ISO)	Acute - LC50 - Fresh water	5.213 µg/l [48 hours]		
	Chronic - NOEC - Fresh water	0.113 ppm [21 days]		
	Acute - LC50 - Fresh water	0.9 ppm [96 hours]		
	Acute - EC50 - Fresh water	2.6 ppm [96 hours]		
	Chronic - NOEC	0.43 ppm [69 days]		
Coumaphos (ISO)	Acute - LC50 - Fresh water	150 µg/l [96 hours]		
	Acute - LC50 - Fresh water	0.14 µg/l [48 hours]		
	Chronic - NOEC	11.7 ppb [62 days]		
	Chronic - NOEC - Fresh water	0.034 ppb [21 days]		
Deltamethrin (ISO)	Acute - LC50 - Fresh water	0.102 µg/l [96 hours]		
	Acute - EC50 - Fresh water	2.56 mg/l [72 hours]		
	Acute - LC50 - Fresh water	4 ng/l [48 hours]		
	Chronic - NOEC - Fresh water	0.0039 µg/l [60 days]		
	Chronic - NOEC - Fresh water	0.0041 ppb [21 days]		
3-Phenoxybenzyl-2-(4-ethoxyphenyl)	Chronic - NOEC	0.103 ppb [21 days]		

Section 12. Ecological information

-2-methylpropyl ether

Acute - LC50 - Fresh water 2.36 ppb [96 hours]
 Acute - EC50 - Fresh water 0.57 ppb [48 hours]
 Chronic - NOEC 0.67 ppb [90 days]

Daphnia magna
 Fish - Bluegill -
Lepomis macrochirus
 Daphnia - Water flea -
Daphnia magna
 Fish - Rainbow trout,
 donaldson trout -
Oncorhynchus mykiss

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Product/ingredient name	Result
Atrazine (ISO)	- 9.86% [28 days] - Not readily

Conclusion/Summary [Product] : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
Atrazine (ISO)	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Pesticide Analyzer Checkout Solution	-0.24	-	Low
Acetone	-0.23	3	Low
Dichlorvos (ISO)	1.43	0.5	Low
Mevinphos (ISO)	0.13	-	Low
Ethalfuralin	5.11	-	High
Trifluralin (ISO)	5.34	2290.87	High
Atrazine (ISO)	2.59	7.94	Low
Chlorpyrifos-methyl	4.31	-	High
Heptachlor (ISO)	6.1	8709.64	High
Malathion (ISO)	2.36	33.11	Low
Chlorpyrifos (ISO)	4.96	1513.56	High
Dieldrin (ISO)	5.4	8912.51	High
2,2-bis(p-Chlorophenyl)-1,1-dichloroethylene	6.51	12022.64	High
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	1.85	-	Low
Leptophos (ISO)	6.31	6025.6	High
Fenarimol (ISO)	3.6	-	Low
Coumaphos (ISO)	4.13	-	High
Deltamethrin (ISO)	6.2	323.59	Low
3-Phenoxybenzyl-(4-ethoxyphenyl)-2-methylpropyl ether	7.05	3951	High

Mobility in soil

Soil/water partition coefficient : Not available.

Section 12. Ecological information

Bahagian 13: Maklumat pelupusan

Kaedah pelupusan : Penghasilan sisa perlulah dielakkan atau diminimumkan sekiranya boleh. Pelupusan produk ini, larutan dan sebarang produk sampingan perlulah pada setiap masa mematuhi keperluan perlindungan alam sekitar dan perundangan pelupusan sisa dan sebarang keperluan pihak berkuasa serantau tempatan. Pembuangan lebihan dan hasilan yang tidak boleh dikitar semula melalui kontraktor pelupusan sisa yang berlesen. Bahan buangan tidak harus dibuang secara tidak dirawat ke pembentung kecuali patuh sepenuhnya kepada keperluan semua pihak berkuasa dengan kuasa undang-undang. Bungkusan buangan harus dikitar semula. Penunuan atau kambus tanah hanya harus dipertimbangkan apabila tidak mungkin dikitar semula. Bahan ini dan bekasnya hendaklah dilupuskan dengan cara yang selamat. Hati-hati apabila mengendalikan bekas yang telah dikosongkan tetapi belum dibersihkan atau dibilas. Bekas atau pelapik kosong mungkin mengandungi sisa-sisa produk. Wap daripada sisa produk mungkin menghasilkan atmosfera sangat mudah menyala atau mudah meletup dalam bekasnya. Jangan potong, kimpal atau canai bekas yang telah digunakan kecuali telah dibersihkan bahagian dalamnya dengan rapi. Elakkan penyebaran bahan tertumpah dan aliran dan bersentuh dengan tanah, jalan air, longkang dan pembetung.

Section 13. Disposal information

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Bahagian 14: Maklumat pengangkutan

	UN	ADR/RID	IMDG	IATA
Nombor UN	UN1090	UN1090	UN1090	UN1090
Nama penghantaran sah PBB	ACETONE larutan	ACETONE larutan	ACETONE larutan	Acetone larutan
Kelas bahaya pengangkutan	3 	3  	3  	3 
Kumpulan Pembungkusan	II	II	II	II
Bahaya Alam Sekitar	Ya. Tanda bahan berbahaya pada alam sekitar tidak diperlukan.	Ya.	Ya.	Ya. Tanda bahan berbahaya pada alam sekitar tidak diperlukan.

Bahagian 14: Maklumat pengangkutan

Maklumat Tambahan

Catatan: De minimus exemptions:

- ADR/RID** : Tanda zat berbahaya kepada alam sekitar tidak dikehendaki apabila diangkut dalam ukuran ≤ 5 L atau ≤ 5 kg.
Nombor Identifikasi Bahaya 33
Kuantiti Terhad 1 L
Kod terowong (D/E)
- IMDG** : Tanda zat pencemar laut tidak dikehendaki apabila diangkut dalam ukuran ≤ 5 L atau ≤ 5 kg.
Jadual Kecemasan F-E, S-D
- IATA** : Tanda zat berbahaya kepada alam sekitar mungkin kelihatan jika dikehendaki oleh peraturan pengangkutan lain.
Had kuantiti Pesawat Penumpang dan Kargo: 5 L. Arahan pembungkusan: 353. Pesawat Kargo sahaja: 60 L. Arahan pembungkusan: 364. Kuantiti Terhad - Pesawat Penumpang: 1 L. Arahan pembungkusan: Y341.
- Langkah pencegah istimewa untuk pengguna** : "Pengangkutan dalam premis pemilik:" sentiasa mengangkut dalam bekas bertutup yang tegak dan selamat. Pastikan orang yang mengangkut produk tahu apa yang perlu dilakukan sekiranya berlaku kemalangan atau tumpahan.
- Angkut secara pukal menurut alatan IMO** : Tidak tersedia.

Section 14. Transport information

UN / ADR/RID / IMDG / IATA : Not regulated.

		 	 	

Additional information

Remarks: De minimis quantities

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Bahagian 15: Maklumat pengawalseliaan

Peraturan kebangsaan

Skim Pemberitahuan & Pendaftaran Bahan Berbahaya Alam Sekitar

Tidak ditentukan

Akta Racun, Senarai Racun - Jadual 1

Tidak berkenaan.

Akta Racun, Senarai Racun - Jadual 3

Tidak berkenaan.

Peraturan Antarabangsa

Bahan Kimia Jadual I, II & III Senarai Konvensyen Senjata Kimia

Bahagian 15: Maklumat pengawalseliaan

Tidak tersenarai.

[Protokol Montreal](#)

Tidak tersenarai.

[Konvensyen Stockholm tentang zat pencemar organik gigih](#)

Tidak tersenarai.

[Konvensyen Rotterdam tentang Izin Bermaklum Sebelumnya \(PIC\)](#)

Tidak tersenarai.

[Protokol UNECE Aarhus tentang POP dan Logam Berat](#)

Tidak tersenarai.

[Senarai inventori](#)

[Amerika Syarikat](#) : Tidak ditentukan.

Section 15. Regulatory information

[National regulations](#)

[EHS Register](#)

Not determined

[Poison Act, Poison List - Schedule 1](#)

Not applicable.

[Poison Act, Poison List - Schedule 3](#)

Not applicable.

[International regulations](#)

[Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

Not listed.

[Montreal Protocol](#)

Not listed.

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Inventory list](#)

[United States](#) : Not determined.

Bahagian 16: Maklumat lain

[Sejarah](#)

[Tarikh keluaran/Tarikh semakan](#) : 17/12/2025

[Tarikh Keluaran Terdahulu](#) : Tiada Pengesahan Terdahulu

[Versi](#) : 1

Bahagian 16: Maklumat lain

Petunjuk untuk Singkatan :

- ATE = Anggaran Keracunan Teruk
- BCF = Faktor Biokepekatan
- GHS = Sistem Global Berharmoni bagi Pengelasan dan Pelabelan Kimia
- IATA = Persatuan Pengangkutan Udara Antarabangsa
- IBC = Bekas Pukul Sederhana
- IMDG = Barang-barang Berbahaya Laut Antarabangsa
- LogPow = Logaritma pekali sekatan bagi oktanol/air
- MARPOL = Persidangan Antarabangsa bagi Pencegahan Pencemaran Daripada Kapal-kapal, 1973 seperti yang diubah oleh Protokol 1978. ("Marpol" = pencemaran laut)
- N/A = Tiada
- UN = Pertubuhan Bangsa-bangsa Bersatu

Prosedur yang digunakan untuk memperoleh pengelasan

Klasifikasi	Justifikasi
CECAIR MUDAH TERBAKAR - Kategori 2	Berdasarkan data ujian
KERENGSAAN MATA - Kategori 2	Kaedah pengiraan
KETOKSIKAN ORGAN SASARAN KHUSUS -	Kaedah pengiraan
PENDEDAHAN TUNGGAL (Kesan narkotik) - Kategori 3	
BERBAHAYA KEPADA PERSEKITARAN AKUATIK -	Kaedah pengiraan
BAHAYA AKUT - Kategori 1	
BERBAHAYA KEPADA PERSEKITARAN AKUATIK -	Kaedah pengiraan
BAHAYA KRONIK - Kategori 1	

➤ Menunjukkan maklumat yang telah berubah daripada versi isu terdahulu.

Notis kepada pembaca

Penafian: Maklumat yang terdapat dalam dokumen ini didasarkan pada keadaan Agilent's pengetahuan pada saat persiapan. Tidak ada jaminan nya untuk ketepatan, kelengkapan atau kesesuaian untuk tujuan tertentu yang tersurat atau tersirat.

Section 16. Other information

History

Date of issue/Date of revision : 17/12/2025

Date of previous issue : No previous validation

Version : 1

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- UN = United Nations

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
EYE IRRITATION - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 1	Calculation method
HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD - Category 1	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

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