

SAFETY DATA SHEET

2D-LC Solution, Part Number 5190-6895

Section 1. Identification

Product identifier : 2D-LC Solution, Part Number 5190-6895
Part no. : 5190-6895

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

Identified uses : Reagents and Standards for Analytical Chemistry Laboratory Use
1 x 2 ml

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

H225 FLAMMABLE LIQUIDS - Category 2
H302 ACUTE TOXICITY (oral) - Category 4
H312 ACUTE TOXICITY (dermal) - Category 4
H332 ACUTE TOXICITY (inhalation) - Category 4
H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
H336 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
H400 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
H410 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

GHS label elements

Hazard pictograms



Signal word : DANGER

Hazard statements : H225 - Highly flammable liquid and vapour.
H302 + H312 + H332 - Harmful if swallowed, in contact with skin or if inhaled.
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 protective gloves and protective clothing. 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 + P233 - Store in a well-ventilated place. Keep container tightly closed.

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

Supplemental label elements

Section 2. Hazard(s) identification

Additional warning phrases : Repeated exposure may cause skin dryness or cracking.

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

Section 3. Composition and ingredient information

Substance/mixture : Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Acetonitrile	≥60 - ≤75	75-05-8
Acetone	≥10 - ≤30	67-64-1
Atrazine (ISO)	≤0.3	1912-24-9
Diuron (ISO)	≤0.3	330-54-1
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	≤0.3	51235-04-2

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

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. 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

Section 4. First aid measures

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** : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : Harmful if swallowed. 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** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

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

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. 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
nitrogen oxides
cyanides

Section 5. Firefighting measures

- 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.
- Hazchem code** : •3YE

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".

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.

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

Advice on general occupational hygiene : 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.

Section 7. Handling and storage

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.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Acetonitrile	Safe Work Australia (Australia, 10/2022). Absorbed through skin. STEL: 101 mg/m ³ 15 minutes. STEL: 60 ppm 15 minutes. TWA: 67 mg/m ³ 8 hours. TWA: 40 ppm 8 hours.
Acetone	Safe Work Australia (Australia, 10/2022). STEL: 2375 mg/m ³ 15 minutes. STEL: 1000 ppm 15 minutes. TWA: 1185 mg/m ³ 8 hours. TWA: 500 ppm 8 hours.
Atrazine (ISO)	Safe Work Australia (Australia, 10/2022). Skin sensitiser. Inhalation sensitiser. TWA: 5 mg/m ³ 8 hours.
Diuron (ISO)	Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m ³ 8 hours.
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	ACGIH TLV (United States, 1/2023). TWA: 3 mg/m ³ 8 hours. Form: Inhalable fraction

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

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.

Section 8. Exposure controls and personal protection

- 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.

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** : Not available.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Closed cup: -18 to 23°C (-0.4 to 73.4°F)
- Evaporation rate** : Not available.
- Flammability** : Not applicable.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapour pressure** :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Acetone	180.01463	24	-	-	-	-
Acetonitrile	70.88853	9.5	-	-	-	-

- Relative vapour density** : Not available.
- Relative density** : Not available.

Section 9. Physical and chemical properties and safety characteristics

Solubility(ies)	Media	Result		
	water	Soluble		
Miscible with water	: Yes.			
Partition coefficient: n-octanol/water	: Not applicable.			
Auto-ignition temperature	Ingredient name	°C	°F	Method
	Acetone	465	869	-
	Acetonitrile	524	975.2	-
Decomposition temperature	: Not available.			
Viscosity	: Not available.			
Particle characteristics				
Median particle size	: Not applicable.			

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.
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.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetonitrile	LC50 Inhalation Vapour	Rat	17100 ppm	4 hours
	LD50 Oral	Rat	2460 mg/kg	-
Acetone	LD50 Oral	Rat	5800 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	5200 mg/m ³	4 hours
Atrazine (ISO)	LD50 Dermal	Rabbit	7500 mg/kg	-
	LD50 Dermal	Rat	3 g/kg	-
Diuron (ISO)	LD50 Oral	Rat	672 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5.05 mg/l	4 hours
	LD50 Dermal	Rat	>5 g/kg	-
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	LD50 Oral	Rat	1 g/kg	-
	LD50 Dermal	Rabbit	>5278 mg/kg	-
	LD50 Dermal	Rat	5278 mg/kg	-
	LD50 Oral	Rat	1690 mg/kg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetonitrile	Eyes - Moderate irritant	Rabbit	-	24 hours 100 uL	-
Acetone	Eyes - Mild irritant	Rabbit	-	10 uL	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Atrazine (ISO)	Eyes - Severe irritant	Rabbit	-	6320 ug	-
	Skin - Mild irritant	Rabbit	-	38 mg	-
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	Eyes - Moderate irritant	Rabbit	-	48 mg	-

Conclusion/Summary

Skin : Repeated exposure may cause skin dryness or cracking.

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Atrazine (ISO)	Category 2	-	-
Diuron (ISO)	Category 2	-	-

Aspiration hazard

Not available.

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

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Harmful if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : Harmful in contact with skin. Defatting to the skin. May cause skin dryness and irritation.

Ingestion : Harmful if swallowed. Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Section 11. Toxicological information

- 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** : Adverse symptoms may include the following:
irritation
dryness
cracking
- 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

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

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)
2D-LC Solution, Part Number 5190-6895	680.0	1496.0	N/A	15.0	N/A
Acetonitrile	500	1100	N/A	11	N/A
Acetone	5800	20000	N/A	76	N/A
Atrazine (ISO)	672	3000	N/A	N/A	5.2
Diuron (ISO)	1000	N/A	N/A	N/A	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

Other information : Adverse symptoms may include the following: May cause skin sensitisation.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetonitrile	Acute IC50 3685000 µg/l Fresh water Acute LC50 3600000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water Chronic NOEC 1000000 µg/l Fresh water	Aquatic plants - <i>Lemna minor</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Pimephales promelas</i> Aquatic plants - <i>Lemna minor</i>	96 hours 48 hours 96 hours 96 hours
Acetone	Chronic NOEC 160000 µg/l Fresh water Acute EC50 7200000 µg/l Fresh water Acute LC50 4.42589 ml/L Marine water	Daphnia - <i>Daphnia magna</i> Algae - <i>Selenastrum sp.</i> Crustaceans - <i>Acartia tonsa</i> - Copepodid	21 days 96 hours 48 hours
Atrazine (ISO)	Acute LC50 7460000 µg/l Fresh water Acute LC50 5600 ppm Fresh water Chronic NOEC 4.95 mg/l Marine water Chronic NOEC 0.016 ml/L Fresh water Chronic NOEC 0.1 ml/L Fresh water	Daphnia - <i>Daphnia cucullata</i> Fish - <i>Poecilia reticulata</i> Algae - <i>Ulva pertusa</i> Crustaceans - <i>Daphniidae</i> Daphnia - <i>Daphnia magna</i> - Neonate	48 hours 96 hours 96 hours 21 days 21 days
	Acute EC50 4.3 µg/l Fresh water Acute EC50 11 µg/l Fresh water Acute EC50 0.0405 mg/l Fresh water Acute EC50 240 µg/l Fresh water Acute IC50 13.4 µg/l Marine water Acute LC50 373.9 µg/l Marine water	Algae - <i>Chlorella vulgaris</i> Algae - <i>Scenedesmus acutus</i> Aquatic plants - <i>Lemna minor</i> Daphnia - <i>Daphnia pulex</i> Aquatic plants - <i>Zostera muelleri</i> Crustaceans - <i>Acartia tonsa</i> - Adult	96 hours 72 hours 96 hours 48 hours 72 hours 48 hours
	Acute LC50 1.25 ppm Fresh water Chronic IC10 1.17 µg/l Marine water Chronic NOEC 0.002 mg/l Fresh water	Fish - <i>Barbodes carnaticus</i> Aquatic plants - <i>Zostera muelleri</i> Algae - <i>Scenedesmus acutus var. acutus</i> - Exponential growth phase	96 hours 72 hours 3 days
Diuron (ISO)	Chronic NOEC 25 µg/l Fresh water Chronic NOEC 3 mg/l Fresh water Chronic NOEC 0.26 ppb Fresh water Acute EC50 0.0013 mg/l Fresh water Acute EC50 2.26 µg/l Marine water	Crustaceans - <i>Ceriodaphnia sp.</i> Daphnia - <i>Daphnia magna</i> Fish - <i>Poecilia reticulata</i> - Adult Algae - <i>Chlorella pyrenoidosa</i> Algae - <i>Coccolithus huxleyi</i> - Exponential growth phase	21 days 21 days 16 weeks 96 hours 72 hours
	Acute EC50 0.005 mg/l Fresh water Acute EC50 7.2 mg/l Fresh water	Aquatic plants - <i>Lemna sp.</i> Daphnia - <i>Daphnia magna</i> - Neonate	96 hours 48 hours
	Acute IC50 2.41 µg/l Marine water	Aquatic plants - <i>Halodule uninervis</i>	72 hours
	Acute LC50 380 µg/l Fresh water	Crustaceans - <i>Gammarus lacustris</i>	48 hours
	Acute LC50 500 µg/l Fresh water Chronic EC10 0.11 µg/l Fresh water	Fish - <i>Morone saxatilis</i> - Larvae Algae - <i>Fragilaria capucina</i> - Exponential growth phase	96 hours 96 hours
	Chronic NOEC 0.34 µg/l Marine water Chronic NOEC 26.4 ppb Acute EC50 0.073 mg/l Fresh water	Aquatic plants - <i>Zostera muelleri</i> Fish - <i>Pimephales promelas</i> Aquatic plants - <i>Lemna sp.</i>	72 hours 60 days 96 hours
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	Acute EC50 85 ppm Fresh water Acute IC50 4.4 µg/l Marine water Acute LC50 71.6 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> Aquatic plants - <i>Zostera muelleri</i> Crustaceans - <i>Pacifastacus leniusculus</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours 72 hours 48 hours
	Acute LC50 146.7 ppm Fresh water Chronic NOEC 0.37 µg/l Marine water	Fish - <i>Oncorhynchus mykiss</i> Aquatic plants - <i>Halodule uninervis</i>	96 hours 72 hours
	Chronic NOEC 0.1 mg/l Fresh water Chronic NOEC 20 ppm Fresh water	Crustaceans - <i>Copepoda</i> Daphnia - <i>Daphnia magna</i>	21 days 21 days

Section 12. Ecological information

	Chronic NOEC 85.5 µg/l Fresh water	Fish - <i>Salmo salar</i> - Yolk-sac larvae	396 days
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Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Acetonitrile	OECD 310 Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)	70 % - Readily - 21 days	-	Activated sludge
Atrazine (ISO)	-	9.86 % - Not readily - 28 days	-	-
Diuron (ISO)	OECD 301F Ready Biodegradability - Manometric Respirometry Test	0 % - Not readily - 28 days	-	-

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

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Acetonitrile	-0.34	3	Low
Acetone	-0.23	3	Low
Atrazine (ISO)	2.59	7.94	Low
Diuron (ISO)	2.84	5.2	Low
3-Cyclohexyl-6-dimethylamino-1-methyl-1,2,3,4-tetrahydro-1,3,5-triazine-2,4-dione	1.85	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.





Section 13. Disposal considerations

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

Section 13. Disposal considerations

dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN1993	UN1993	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Acetonitrile, Acetone)	FLAMMABLE LIQUID, N.O.S. (Acetonitrile, Acetone)	Flammable liquid, n.o.s. (Acetonitrile, Acetone)
Transport hazard class(es)	3 	3  	3 
Packing group	II	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

Remarks: Excepted Quantity

- ADG** : **Hazchem code** •3YE
Special provisions 274
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-E, _S-E_
Special provisions 274
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 5 L. Packaging instructions: 353. Cargo Aircraft Only: 60 L. Packaging instructions: 364. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y341.
Special provisions A3
- 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.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

5

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Section 15. Regulatory information

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	: Not determined.
New Zealand	: Not determined.
United States	: At least one component is inactive.

Section 16. Any other relevant information

History

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Version : 7

Key to abbreviations

: ADG = Australian Dangerous Goods
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 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
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	Expert judgment Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

Indicates information that has changed from previously issued version.

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