

SAFETY DATA SHEET

OQ - PV Headspace Sample, Part Number 5182-9733

Section 1. Chemical product and company identification

GHS product identifier : OQ - PV Headspace Sample, Part Number 5182-9733

 OQ - PV 顶空样品，部件号 5182-9733

Part No. : 5182-9733

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

Material uses : Analytical chemistry.
1 mlSupplier/Manufacturer : Agilent Technologies Shanghai Co., Ltd.
LC-China
412 Ying Lun Road
Waigaoqiao Free Trade Zone
Shanghai 200131 P. R. China
Telephone no.: 800-820-3278

Emergency telephone number (with hours of operation) : CHEMTREC®: 4001-204937

Section 2. Hazards identification

Classification of the substance or mixture according to GB 13690-2009 and GB 30000-2013

Emergency overview

Physical state : Liquid. [Clear.]

Colour : Colourless.

Odour : Ethereal./Vinous.

- H225 - Highly flammable liquid and vapour.
- H319 - Causes serious eye irritation.
- H316 - Causes mild skin irritation.
- H360 - May damage fertility or the unborn child.
- H351 - Suspected of causing cancer.
- H412 - Harmful to aquatic life with long lasting effects.

 Exposed or concerned: Get medical attention. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention.

See Section 12 for environmental precautions.

Classification of the substance or mixture

<input checked="" type="checkbox"/> H225	FLAMMABLE LIQUIDS - Category 2
H316	SKIN CORROSION/IRRITATION - Category 3
H319	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
H351	CARCINOGENICITY - Category 2
H360	REPRODUCTIVE TOXICITY (Fertility) - Category 1B
H360	REPRODUCTIVE TOXICITY (Unborn child) - Category 1B
H402	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3
H412	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

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.
H316 - Causes mild skin irritation.
H360 - May damage fertility or the unborn child.
H351 - Suspected of causing cancer.
H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P233 - Keep container tightly closed.
P273 - Avoid release to the environment.
P264 - Wash hands thoroughly after handling.
- Response** : P308 + P313 - IF exposed or concerned: Get medical attention.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P332 + P313 - If skin irritation occurs: Get medical attention.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.
- Storage** : P405 - Store locked up.
P403 - Store in a well-ventilated place.
P235 - Keep cool.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Physical and chemical hazards** : Highly flammable liquid and vapour.
- Health hazards** : Causes serious eye irritation. Causes mild skin irritation. May damage fertility or the unborn child. Suspected of causing cancer.

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:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Section 2. Hazards identification

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.

Environmental hazards : Harmful to aquatic life with long lasting effects.

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

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

Ingredient name	%	CAS number
Ethanol	≥90	64-17-5
1,2-Dichlorobenzene	≤0.3	95-50-1
nitrobenzene	≤0.3	98-95-3

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.

Section 4. First aid measures

Description of necessary first aid measures

- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 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.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. 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.
- Skin contact** : Flush contaminated skin with plenty of water. 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

Section 4. First aid measures

- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Causes mild skin irritation.
- Eye contact** : Causes serious eye irritation.

Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Eyes** : Adverse symptoms may include the following:
pain or irritation
watering
redness

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

- Specific treatments** : No specific treatment.
- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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** : Use dry chemical, CO₂, water spray (fog) or foam.
- Not suitable** : 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. 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 harmful 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 precautions 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.

Section 5. Firefighting measures

- 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.

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 spilled material. Shut off all ignition sources. No flames, 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 spilled 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.

- Methods and material for containment and 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). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. 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.

- 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 oxidizing 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/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Ethanol 1,2-Dichlorobenzene nitrobenzene	ACGIH TLV (United States, 3/2016). STEL: 1000 ppm 15 minutes. GBZ 2.1 (China, 4/2007). PC-TWA: 50 mg/m ³ 8 hours. PC-STEL: 100 mg/m ³ 15 minutes. GBZ 2.1 (China, 4/2007). Absorbed through skin. PC-TWA: 2 mg/m ³ 8 hours.

- 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.
- 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.
- Eye 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.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid. [Clear.]
Colour	: Colourless.
Odour	: Ethereal./Vinous.
Odour threshold	: Not available.
pH	: Not available.
Melting point	: -117°C (-178.6°F)
Boiling point	: 78.3°C (172.9°F)
Flash point	: Open cup: 12.7°C (54.9°F)
Evaporation rate	: >4 (butyl acetate = 1)
Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: Lower: 3.3% Upper: 19%
Vapour pressure	: 5.7 kPa (43 mm Hg) [room temperature]
Vapour density	: 1.7 [Air = 1]
Relative density	: Not available.
Solubility	: Soluble in the following materials: cold water and hot water.
Solubility in water	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: 422°C (791.6°F)
Decomposition temperature	: Not available.
Viscosity	: Not available.

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: oxidizing materials Reactive or incompatible with the following materials: acids and alkalis.
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

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
1) Ethanol	LC50 Inhalation Vapour	Rat	124700 mg/m ³	4 hours
2)	LD50 Oral	Rat	7 g/kg	-
3) 1,2-Dichlorobenzene	LC50 Inhalation Vapour	Rat	8150 mg/m ³	4 hours
4)	LD50 Dermal	Rabbit	>10 g/kg	-
5)	LD50 Oral	Rat	500 mg/kg	-
6) nitrobenzene	LC50 Inhalation Vapour	Rat	2800 mg/m ³	4 hours
7)	LC50 Inhalation Vapour	Rat	556 ppm	4 hours
8)	LD50 Dermal	Rabbit	760 mg/kg	-
9)	LD50 Dermal	Rat	2100 mg/kg	-
10)	LD50 Oral	Rat	349 mg/kg	-

References

- U.S. Environmental Protection Agency; High Production Volume (HPV) Challenge; Aluminum Alkoxides Category.pdf <http://www.epa.gov/HPV/pubs/summaries/almalkct/c16706tc.htm> -,2008
- United States Patent Document. (U.S. Patent Office, Box 9, Washington, DC 20231) #6696575
- "Vrednie chemicheskije veshstva, galogen i kislorod sodergashie organicheskie soedinenia". (Hazardous substances. Galogen and oxygen containing substances), Bandman A.L. et al., Chimia, 1994. -,24,1984
- National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. OTS0521597
- World Review of Pest Control. (London, UK) V.1-10, 1962-71. Discontinued. 9,119,1970
- Conversion of IADL value using CSST ppm->mg/m3 conversion factor: 5.035
- National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. OTS0570970
- ECHA
- Gigiena i Sanitariya. For English translation, see HYSAAV. (V/O Mezhdunarodnaya Kniga, 113095 Moscow, USSR) V.1- 1936- 24(9),15,1959
- National Technical Information Service. (Springfield, VA 22161) Formerly U.S. Clearinghouse for Scientific & Technical Information. OTS0559505

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1) Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
2)	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 milligrams	-
3)	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
4)	Skin - Mild irritant	Rabbit	-	400 milligrams	-
5)	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
6) 1,2-Dichlorobenzene	Eyes - Mild irritant	Rabbit	-	0.5 minutes 100 milligrams	-
7) nitrobenzene	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
8)	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

References

- "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J., Prague, Czechoslovakia, Avicenum, 1986 -,189,1986
- Food and Chemical Toxicology. (Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523) V.20- 1982- 20,573,1982
- U.S. Environmental Protection Agency; High Production Volume (HPV) Challenge; Aluminum Alkoxides Category.pdf <http://www.epa.gov/HPV/pubs/summaries/almalkct/c16706tc.htm> -,2008
- Union Carbide Data Sheet. (Union Carbide Corp., 39 Old Ridgebury Rd., Danbury, CT 06817) 7/22/1970
- "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J., Prague, Czechoslovakia, Avicenum, 1986 -,189,1986
- AMA Archives of Industrial Health. (Chicago, IL) V.11-21, 1955-60. For publisher information, see AEHLAU. 17,180,1958
- "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J., Prague, Czechoslovakia, Avicenum, 1986 -,411,1986
- "Prehled Prumyslove Toxikologie; Organicke Latky," Marhold, J., Prague, Czechoslovakia, Avicenum, 1986 -,411,1986

Conclusion/Summary

Skin : Repeated exposure may cause skin dryness or cracking.

Sensitisation

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
1,2-Dichlorobenzene	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
Nitrobenzene	Category 1	Not determined	Not determined

Aspiration hazard

Not available.

Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity

Not available.

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

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.
Skin contact : Causes mild skin irritation.
Eye contact : Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

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** : No known significant effects or critical hazards.
Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : May damage the unborn child.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : May damage fertility.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Ethanol [Dry]	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.375 µl/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks
1,2-dichlorobenzene	Acute EC50 12.8 mg/l Fresh water	Algae - Phaeodactylum tricornutum	72 hours
	Acute EC50 2200 µg/l	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 740 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
nitrobenzene	Acute EC50 1.55 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 4.52 ppm Marine water	Crustaceans - Americamysis bahia	48 hours
	Chronic NOEC 630 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Acute EC50 9.95 ppm Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 9.65 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute LC50 5.86 ppm Marine water	Crustaceans - Americamysis bahia	48 hours
	Acute LC50 7.2 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 43 mg/l Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours
Chronic NOEC 3200 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours	
Chronic NOEC 2600 µg/l Fresh water	Daphnia - Daphnia magna	21 days	

References

- 1) Environ. Pollut.153(3): 699-705
- 2) Comp. Biochem. Physiol. C Comp. Pharmacol.105(3): 393-395
- 3) Mar. Sci.4:36-40
- 4) ASTM Spec. Tech. Publ.:286-298
- 5) Environ. Pollut.153(3): 699-705
- 6) Ecotoxicology19(5): 901-910
- 7) Arch. Environ. Contam. Toxicol.51(2): 253-262
- 8) Chin. J. Oceanol. Limnol.15(4): 308-313
- 9) Chemosphere10(10): 1123-1126
- 10) Regul. Toxicol. Pharmacol.5:123-131
- 11) EPA 600/3-84-009, U.S.EPA, Duluth, MN:103 p.
- 12) EPA/OTS Doc.#40-7848049:46 p.
- 13) Water Res.23(4): 501-510
- 14) EPA/OTS Doc.#40-7848049:46 p.
- 15) EPA/OTS Doc.#40-7848049:46 p.
- 16) EPA/OTS Doc.#40-7848049:46 p.
- 17) Final Rep.Coop.Agreement 807479-01-0, U.S.EPA, Off.of Pestic.and Toxic Subst., Washington, DC:258 p.
- 18) Bull. Environ. Contam. Toxicol.26(4): 446-452
- 19) U.S.EPA Contract No.68-01-4646, Duluth, MN:9 p.
- 20) Water Res.23(4): 501-510

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Ethanol [Dry]	-	-	Readily

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
alcohol [Dry]	-0.35	0.5	low
1,2-dichlorobenzene	3.38	150 to 230	low
nitrobenzene	1.86	3.1 to 4.8	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 dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	China	UN	IMDG	IATA
UN number	UN1170	Not regulated.	Not regulated.	UN1170
UN proper shipping name	ETHANOL SOLUTION	-	-	Ethanol solution
Transport hazard class(es)	3 	-	-	3 
Packing group	II	-	-	II
Environmental hazards	No.	No.	No.	No.

Additional information

Remarks: De minimis quantities

China : **Special provisions** 144

IATA : **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, A58, A180

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.

Section 14. Transport information

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials
☒ Reactive or incompatible with the following materials: acids and alkalis.

Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

List of Goods banned for Importing

None of the components are listed.

Inventory of Hazardous Chemicals

Ingredient name	CAS number	Status	Reference number
☒ Ethanol	64-17-5	Listed	107 / 2568
1,2-Dichlorobenzene	95-50-1	Listed	501
Nitrobenzene	98-95-3	Listed	2228

List of Goods banned for Exporting

None of the components are listed.

List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

Inventory of Highly Toxic Chemicals

None of the components are listed.

Catalogue of Hazardous Chemicals of Priority Management

☒ Nitrobenzene Listed

Catalogue of Priority Hazardous Chemicals for Environmental Management

None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

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

Australia : All components are listed or exempted.

Canada : At least one component is not listed in DSL but all such components are listed in NDSL.

China : Not determined.

Section 15. Regulatory information

Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: All components are listed or exempted.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Other information

History

Date of issue/Date of revision	: 18/09/2017
Date of previous issue	: 15/01/2016.
Version	: 6

Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> FLAMMABLE LIQUIDS - Category 2 SKIN CORROSION/IRRITATION - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 REPRODUCTIVE TOXICITY (Fertility) - Category 1B REPRODUCTIVE TOXICITY (Unborn child) - Category 1B SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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