

Safety Data Sheet

IO2920SS

Version number: 1.4

Date of compilation: 2026-01-06

SECTION 1: Identification

1.1 Product identifier

Trade name **Iodine Solution, Tincture**
SDS Identifier **IO2920SS**

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

Relevant identified uses laboratory and analytical use

1.3 Details of the supplier of the safety data sheet

AquaPhoenix Scientific
860 Gitts Run Road
Hanover PA 17331
United States

Telephone: (866) 632-1291
e-mail: info@aquaphoenixsci.com
Website: <https://www.aquaphoenixsci.com/>

1.4 Emergency telephone number

Emergency information service ChemTel Inc.: 1-800-255-3924, +01-813-248-0585

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200, Rev. 2024)

Hazard class	Category	Hazard class and category	Hazard statement
flammable liquid	3	Flam. Liq. 3	H226
acute toxicity (oral)	5	Acute Tox. 5	H303
skin corrosion/irritation	3	Skin Irrit. 3	H316
serious eye damage/eye irritation	2	Eye Irrit. 2	H319
carcinogenicity	1A	Carc. 1A	H350
specific target organ toxicity - repeated exposure	2	STOT RE 2	H373
hazardous to the aquatic environment - acute hazard	2	Aquatic Acute 2	H401

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. The product is combustible and can be ignited by potential ignition sources. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200, Rev. 2024)

- Signal word danger

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- Pictograms

GHS02, GHS07, GHS08



- Hazard statements

H226	Flammable liquid and vapour.
H303	May be harmful if swallowed.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H350	May cause cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.

- Precautionary statements

P203	Obtain, read and follow all safety instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264+P265	Wash hands thoroughly after handling. Do not touch eyes.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P317	IF SWALLOWED: Get medical help.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P318	IF exposed or concerned, get medical advice.
P319	Get medical help if you feel unwell.
P332+P317	If skin irritation occurs: Get medical help.
P337+P317	If eye irritation persists: Get medical help.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazardous ingredients for labelling

Ethanol, Iodine Reagent, Sodium Iodide, methyl alcohol

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

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3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Water	CAS No 7732-18-5	46		
Ethanol	CAS No 64-17-5	42.9	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 Carc. 1A / H350	  
Isopropanol	CAS No 67-63-0	4.505	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	 
methyl alcohol	CAS No 67-56-1	2.145	Flam. Liq. 2 / H225 Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370	  
Sodium Iodide	CAS No 7681-82-5	2	Acute Tox. 5 / H303 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT RE 1 / H372 Aquatic Acute 1 / H400	  
Iodine Reagent	CAS No 7553-56-2	2	Chem. Press. 2 / H283 Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335 STOT RE 1 / H372 Aquatic Acute 1 / H400	    
Methyl isobutyl ketone	CAS No 108-10-1	0.45	Flam. Liq. 2 / H225 Acute Tox. 5 / H303 Acute Tox. 4 / H332 Eye Irrit. 2 / H319 Carc. 2 / H351 STOT SE 3 / H335 STOT SE 3 / H336	  

Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

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Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

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Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

Wear impact- and splash-resistant eyewear.

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

Control of the effects

Protect against external exposure, such as

heat, high temperatures, light, UV-radiation/sunlight

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)											
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
US	hexone	108-10-1	REL	50 (10 h)	205 (10 h)	75	300				NIOSH REL
US	hexone (methyl isobutyl ketone)	108-10-1	PEL	100	410						29 CFR 1910.10 00

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	methyl isobutyl ketone	108-10-1	TLV®	20		75					ACGIH® 2024
US	methyl isobutyl ketone (hexone)	108-10-1	PEL (CA)	50	205	75	300				Cal/OSH A PEL
US	ethanol	64-17-5	TLV®			1,000					ACGIH® 2024
US	ethyl alcohol	64-17-5	REL	1,000 (10 h)	1,900 (10 h)						NIOSH REL
US	ethyl alcohol (ethanol)	64-17-5	PEL (CA)	1,000	1,900						Cal/OSH A PEL
US	ethyl alcohol (ethanol)	64-17-5	PEL	1,000	1,900						29 CFR 1910.1000
US	methanol	67-56-1	TLV®	200		250				H	ACGIH® 2024
US	methyl alcohol	67-56-1	PEL	200	260						29 CFR 1910.1000
US	methyl alcohol	67-56-1	REL	200 (10 h)	260 (10 h)	250	325			H	NIOSH REL
US	methyl alcohol (methanol)	67-56-1	PEL (CA)	200	260	250	325	1,000		H	Cal/OSH A PEL
US	2-propanol	67-63-0	TLV®	200		400					ACGIH® 2024
US	isopropyl alcohol	67-63-0	PEL (CA)	400	980	500	1,225				Cal/OSH A PEL
US	isopropyl alcohol	67-63-0	REL	400 (10 h)	980 (10 h)	500	1,225				NIOSH REL
US	isopropyl alcohol	67-63-0	PEL	400	980						29 CFR 1910.1000
US	iodine	7553-56-2	PEL (CA)					0.1	1		Cal/OSH A PEL
US	iodine	7553-56-2	REL					0.1	1		NIOSH REL
US	iodine	7553-56-2	PEL					0.1	1		29 CFR 1910.1000
US	iodine	7553-56-2	TLV®	0.001						iv, H	ACGIH® 2024

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
iv	inhalable fraction and vapor
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-

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Notation

weighted average (unless otherwise specified)

Biological limit values						
Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	methyl isobutyl ketone	methyl isobutyl ketone		BEI®	1 mg/l	ACGIH® 2024
US	methanol	methanol		BEI®	15 mg/l	ACGIH® 2024
US	2-propanol	acetone		BEI®	40 mg/l	ACGIH® 2024

Relevant DNELs of components						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
methyl alcohol	67-56-1	DNEL	130 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
methyl alcohol	67-56-1	DNEL	130 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
methyl alcohol	67-56-1	DNEL	130 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
methyl alcohol	67-56-1	DNEL	130 mg/m³	human, inhalatory	worker (industry)	acute - local effects
methyl alcohol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
methyl alcohol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
Iodine Reagent	7553-56-2	DNEL	0.07 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Iodine Reagent	7553-56-2	DNEL	1 mg/m³	human, inhalatory	worker (industry)	acute - local effects
Iodine Reagent	7553-56-2	DNEL	0.01 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Sodium Iodide	7681-82-5	DNEL	0.822 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Sodium Iodide	7681-82-5	DNEL	0.233 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Methyl isobutyl ketone	108-10-1	DNEL	83 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Methyl isobutyl ketone	108-10-1	DNEL	208 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
Methyl isobutyl ketone	108-10-1	DNEL	83 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
Methyl isobutyl ketone	108-10-1	DNEL	208 mg/m³	human, inhalatory	worker (industry)	acute - local effects
Methyl isobutyl ketone	108-10-1	DNEL	11.8 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

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Relevant PNECs of components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Sodium Iodide	7681-82-5	PNEC	0.28 mg/l	aquatic organisms	freshwater	short-term (single instance)
Sodium Iodide	7681-82-5	PNEC	28 µg/l	aquatic organisms	marine water	short-term (single instance)
Sodium Iodide	7681-82-5	PNEC	1.38 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Sodium Iodide	7681-82-5	PNEC	0.138 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Sodium Iodide	7681-82-5	PNEC	0.111 mg/kg	terrestrial organisms	soil	short-term (single instance)
Methyl isobutyl ketone	108-10-1	PNEC	0.6 mg/l	aquatic organisms	freshwater	short-term (single instance)
Methyl isobutyl ketone	108-10-1	PNEC	0.06 mg/l	aquatic organisms	marine water	short-term (single instance)
Methyl isobutyl ketone	108-10-1	PNEC	27.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Methyl isobutyl ketone	108-10-1	PNEC	8.27 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Methyl isobutyl ketone	108-10-1	PNEC	0.83 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Methyl isobutyl ketone	108-10-1	PNEC	1.3 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Product description: See website or catalog for details.

Physical state	liquid
Color	violet
Odor	like alcohol
Melting point/freezing point	-98 °C
Boiling point or initial boiling point and boiling range	64.7 °C at 1,013 hPa
Evaporation rate	not determined
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	2 vol% - 31 vol%
Flash point	24 – 30 °C (closed cup)
Auto-ignition temperature	>260 °C (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined

Solubility(ies)

Water solubility	miscible in any proportion
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Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
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Vapor pressure	169.3 hPa at 25 °C
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Density and/or relative density

Density	not determined
Relative vapour density	information on this property is not available

Particle characteristics	not relevant (liquid)
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200, Rev. 2024)

Acute toxicity

May be harmful if swallowed.

- Acute toxicity estimate (ATE)

Oral 3,859 mg/kg

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
methyl alcohol	67-56-1	oral	100 mg/kg
methyl alcohol	67-56-1	dermal	300 mg/kg
methyl alcohol	67-56-1	inhalation: vapor	3 mg/l/4h
Iodine Reagent	7553-56-2	oral	500 mg/kg
Iodine Reagent	7553-56-2	dermal	1,100 mg/kg
Iodine Reagent	7553-56-2	inhalation: dust/mist	>4.588 mg/l/4h
Sodium Iodide	7681-82-5	oral	4,340 mg/kg
Methyl isobutyl ketone	108-10-1	oral	4,570 mg/kg
Methyl isobutyl ketone	108-10-1	inhalation: vapor	11.6 mg/l/4h

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Skin corrosion/irritation

Causes mild skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

May cause cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans

Name of substance	CAS No	Classification	Number
Isopropanol	67-63-0	3	
Ethanol	64-17-5	1	
Methyl isobutyl ketone	108-10-1	2B	

Legend

- 1 Carcinogenic to humans
- 2B Possibly carcinogenic to humans
- 3 Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life.

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	15,400 mg/l	fish	96 h
Ethanol	64-17-5	EC50	12,700 mg/l	fish	96 h
Ethanol	64-17-5	ErC50	22,000 mg/l	algae	96 h
Isopropanol	67-63-0	LC50	10,000 mg/l	fish	96 h

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Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
methyl alcohol	67-56-1	LC50	15,400 mg/l	fish	96 h
methyl alcohol	67-56-1	EC50	12,700 mg/l	fish	96 h
methyl alcohol	67-56-1	ErC50	22,000 mg/l	algae	96 h
Iodine Reagent	7553-56-2	LC50	1.67 mg/l	fish	96 h
Iodine Reagent	7553-56-2	ErC50	0.13 mg/l	algae	72 h
Sodium Iodide	7681-82-5	LC50	>100 mg/l	fish	96 h
Methyl isobutyl ketone	108-10-1	LC50	>179 mg/l	fish	96 h
Methyl isobutyl ketone	108-10-1	EC50	>200 mg/l	aquatic invertebrates	48 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number

DOT	UN 1987
IMDG-Code	UN 1987
ICAO-TI	UN 1987

14.2 UN proper shipping name

DOT	Alcohols, n.o.s.
IMDG-Code	ALCOHOLS, N.O.S.
ICAO-TI	Alcohols, n.o.s.

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14.3 Transport hazard class(es)

DOT	3
IMDG-Code	3
ICAO-TI	3

14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Other relevant information

Shipping container markings and labels, received from AquaPhoenix, may vary from the above information. Products that are regulated for transport will be packaged by AquaPhoenix as Dangerous Goods in Excepted Quantities according to IATA, US DOT, and IMDG regulations. AquaPhoenix may also elect to ship certain products as UN 3316 Chemical Kit, Hazard Class 9, Packing Group II or III. In case of reshipment, it is the responsibility of the shipper to determine appropriate labels and markings in accordance with applicable transportation regulations.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN1987, Alcohols, n.o.s., 3, III
Reportable quantity (RQ)	233,100 lbs (105,828 kg) (methyl alcohol) (Methyl isobutyl ketone)
Danger label(s)	3



Special provisions (SP)	172, B1, IB3, T4, TP1, TP29
ERG No	127

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	-
Danger label(s)	3



Special provisions (SP)	223, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-D
Stowage category	A

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International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Danger label(s) 3



Special provisions (SP) A3, A180

Excepted quantities (EQ) E1

Limited quantities (LQ) 10 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed (ACTIVE) or exempt from listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substance	CAS No	Remarks	Effective date
Isopropanol	67-63-0	only persons who manufacture by the strong acid process are subject, supplier notification not required	1986-12-31
methyl alcohol	67-56-1		1986-12-31
Methyl isobutyl ketone	108-10-1		1986-12-31

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
methyl alcohol	67-56-1		3 4	5000 (2270)
Methyl isobutyl ketone	108-10-1		3 4	5000 (2270)

Legend

3 "3" indicates that the source is section 112 of the Clean Air Act

4 "4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

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- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Iodine Reagent	7553-56-2		
Isopropanol	67-63-0		F3
methyl alcohol	67-56-1		TE F3
Ethanol	64-17-5		CA MU TE F3
Methyl isobutyl ketone	108-10-1		F3 R1

Legend

CA	Carcinogenic
F3	Flammable - Third Degree
MU	Mutagenic
R1	Reactive - First Degree
TE	Teratogenic

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals			
Name acc. to inventory	CAS No	Remarks	Type of the toxicity
methanol	67-56-1		developmental
ethanol (ethyl alcohol)	64-17-5	in alcoholic beverages	developmental
methyl isobutyl ketone	108-10-1		cancer
methyl isobutyl ketone (MIBK)	108-10-1		developmental

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	3	material that can be ignited under almost all ambient temperature conditions
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

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Category	Degree of hazard	Description
Flammability	3	material that can be ignited under almost all ambient temperature conditions
Health	0	material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

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SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2024	From ACGIH®, 2024 TLVs® and BEIs® Book. Copyright 2024. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
Chem. Press.	Chemical under pressure
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code

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Abbr.	Descriptions of used abbreviations
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").
 Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG).
 Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
 Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H283	Flammable chemical under pressure: may explode if heated.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.

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Code	Text
H315	Causes skin irritation.
H316	Causes mild skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H351	Suspected of causing cancer.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.