

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : EC9573A

Other means of identification : Not applicable.

Recommended use : WELL STIMULATION CHEMICAL

Restrictions on use : Refer to available product literature or ask your local Sales Representative for restrictions on use and dose limits.

Company : ChampionX LLC
 11177 S. Stadium Drive
 Sugar Land, Texas 77478
 USA
 TEL: (281) 632-6500

Emergency telephone number : (800) 424-9300 (24 Hours) CHEMTREC

Issuing date : 04/27/2022

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 2

Acute toxicity (Oral) : Category 3

Acute toxicity (Inhalation) : Category 3

Acute toxicity (Dermal) : Category 3

Skin irritation : Category 2

Serious eye damage : Category 1

Germ cell mutagenicity : Category 1B

Specific target organ toxicity - single exposure : Category 1 (Eyes)

Specific target organ toxicity - single exposure : Category 3 (Central Nervous System)

Specific target organ toxicity - repeated exposure : Category 2 (Kidney)

GHS Label element

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : Highly flammable liquid and vapour.
 Toxic if swallowed, in contact with skin or if inhaled.
 Causes skin irritation.
 Causes serious eye damage.
 May cause drowsiness or dizziness.
 May cause genetic defects.

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Causes damage to organs (Eyes).
May cause damage to organs (Kidney) through prolonged or repeated exposure.

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
Storage:
Store in a well-ventilated place.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Concentration: (%)</u>
Methanol	67-56-1	60 - 100
Oxyalkylated alcohol	Proprietary	5 - 10
Ethylene Glycol	107-21-1	5 - 10
Isobutanol	78-83-1	5 - 10
Oxyalkylated alcohol	Proprietary	1 - 5
Alcohol Ester	Proprietary	1 - 5

Section: 4. FIRST AID MEASURES

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention immediately.

Protection of first-aiders : In event of emergency assess the danger before taking action. Do not put yourself at risk of injury. If in doubt, contact emergency responders. Use personal protective equipment as required.

Notes to physician : Treat symptomatically.

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Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Foam
Carbon dioxide
Dry powder
Other extinguishing agent suitable for Class B fires
For large fires, use water spray or fog, thoroughly drenching the burning material.
- Unsuitable extinguishing media : None known.
- Specific hazards during firefighting : Fire Hazard
Keep away from heat and sources of ignition.
Flash back possible over considerable distance.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
- Hazardous combustion products : Decomposition products may include the following materials: Carbon oxides
nitrogen oxides (NOx) Sulphur oxides
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation. Remove all sources of ignition. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.
- Methods and materials for containment and cleaning up : Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Flush away traces with water.

Section: 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid contact with skin and eyes. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which

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might cause ignition of organic vapours). Do not ingest. Keep away from fire, sparks and heated surfaces. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.

Conditions for safe storage : Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labelled containers.

Suitable material : The following compatibility data is suggested based on similar product data and/or industry experience: PVC, Teflon (PTFE), Polypropylene, Polyethylene, Stainless Steel 304, Stainless Steel 316L, Hastelloy C-276, Kalrez, EPDM

Unsuitable material : The following compatibility data is suggested based on similar product data and/or industry experience: Copper, Aluminum, Ethylene propylene, Mild steel, Plexiglass, Alfax, Brass, Buna-N, HDPE (high density polyethylene), Natural rubber, Polyurethane, Hypalon, Viton, Neoprene

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
Methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m ³	NIOSH REL
		STEL	250 ppm 325 mg/m ³	NIOSH REL
Ethylene Glycol	107-21-1	TWA	200 ppm 260 mg/m ³	OSHA Z1
		TWA (Vapour.)	25 ppm	ACGIH
		STEL (Vapour.)	50 ppm	ACGIH
		STEL (Inhalable fraction, Aerosol only)	10 mg/m ³	ACGIH
Isobutanol	78-83-1	TWA	50 ppm	ACGIH
		TWA	50 ppm 150 mg/m ³	NIOSH REL
		TWA	100 ppm 300 mg/m ³	OSHA Z1

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection : Safety goggles
Face-shield

Hand protection : Wear impervious chemical-resistant gloves when handling this product. The following glove types are recommended based on our review of glove manufacturer information and/or other available sources.

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Nitrile rubber
Neoprene gloves
butyl-rubber
Other glove types may be used for short term, incidental contact if determined by testing to provide adequate worker protection.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

- Skin protection : Wear suitable protective clothing.
- Respiratory protection : Use local exhaust ventilation or other engineering controls as necessary to control airborne vapour and mist.
When significant vapours are generated, an approved air purifying respirator is recommended to supplement other control measures for short term exposure.
Use a particulate pre-filter where operations generate significant mists or aerosols.
Recommended gas and vapour cartridge:
Multi-purpose combination filter
Methanol Warning! Protection provided by air purifying respirators is limited due to methanol's ability to break through filter media and its poor warning properties. For prolonged exposures, entry into unknown environments or where methanol is suspected to exceed exposure limits, use a positive pressure, full-facepiece SCBA or supplied-air respirator.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

The Personal Protective Equipment (PPE) recommendations provided above have been made in good faith based on typical expected conditions of use. PPE selection should always be completed in conjunction with a proper risk assessment and in accordance with a PPE management program.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : Liquid
- Colour : Amber
- Odour : Bland
- Flash point : 12 °C, Method: ASTM D 93, Pensky-Martens closed cup
- pH : 6
- Odour Threshold : no data available
- Melting point/freezing point : POUR POINT: -62 °C, ASTM D-97
- Initial boiling point and boiling range : 68 °C, Method: Calculated
- Evaporation rate : no data available
- Flammability (solid, gas) : Not applicable.
- Upper explosion limit : 36 V%
- Lower explosion limit : 0.8 V%

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Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 0.856, (15.6 °C),
Density	: 7.1 lb/gal
Water solubility	: dispersible
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: 2.27 mm ² /s (38 °C), estimated 1.03 mm ² /s (66 °C), estimated
Molecular weight	: no data available
VOC	: no data available

Section: 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	: In case of fire, hazardous decomposition products may be produced such as: Carbon oxides nitrogen oxides (NO _x) Sulphur oxides

Section: 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects

Eyes	: Causes serious eye damage.
Skin	: Toxic in contact with skin. Causes skin irritation.
Ingestion	: May cause blindness if swallowed. Toxic if swallowed.
Inhalation	: Toxic if inhaled. Inhalation may cause central nervous system effects.

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Chronic Exposure : May cause damage to organs. May cause genetic defects.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Irritation

Ingestion : No information available.

Inhalation : Respiratory irritation, Cough, Dizziness, Drowsiness

Toxicity

Product

Acute oral toxicity : Acute toxicity estimate: 142.43 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: 0.71 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : Acute toxicity estimate: 433.81 mg/kg

Skin corrosion/irritation : no data available

Serious eye damage/eye irritation : no data available

Respiratory or skin sensitization : no data available

Carcinogenicity : no data available

Reproductive effects : no data available

Germ cell mutagenicity : In vivo tests showed mutagenic effects Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

Teratogenicity : Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations. A mouse inhalation study of 1000 mg/m³ and 2500 mg/m³ showed malformations in the offspring.

STOT - single exposure : no data available

STOT - repeated exposure : no data available

Aspiration toxicity : no data available

Section: 12. ECOLOGICAL INFORMATION

Toxicity

Environmental Effects : Harmful to aquatic life.

Components

Toxicity to fish : Methanol
LC50: 15,400 mg/l
Exposure time: 96 h

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Ethylene Glycol
LC50: 72,860 mg/l
Exposure time: 96 h

Alcohol Ester
LC50 Fish: 7.1 mg/l
Exposure time: 96 h

Components

Toxicity to daphnia and other aquatic invertebrates : Methanol
EC50 : > 10,000 mg/l
Exposure time: 48 h

Ethylene Glycol
EC50 : > 100 mg/l
Exposure time: 48 h

Oxyalkylated alcohol
LC50 Daphnia: 5.33 mg/l
Exposure time: 48 h

Components

Toxicity to algae : Methanol
EC50 : 22,000 mg/l
Exposure time: 72 h

Ethylene Glycol
EC50 : 6,500 mg/l
Exposure time: 96 h

Components

Toxicity to bacteria : Methanol
> 1,000 mg/l

Ethylene Glycol
> 1,995 mg/l

Components

Toxicity to fish (Chronic toxicity) : Methanol
NOEC: 7,900 mg/l
Exposure time: 8.3 d

Ethylene Glycol
NOEC: 15,380 mg/l
Exposure time: 7 d

Alcohol Ester
NOEC: 0.12 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)

Components

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Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Ethylene Glycol
NOEC: 8,590 mg/l
Exposure time: 7 d

Alcohol Ester
NOEC: 0.27 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

Persistence and degradability

no data available

Mobility

The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of the models.

If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages;

Air : 5 - 10%
Water : 10 - 30%
Soil : 50 - 70%

The portion in water is expected to float on the surface.

Bioaccumulative potential

no data available

Other information

no data available

Section: 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The classification or waste code may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated at the time of disposal to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Disposal methods : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

Section: 14. TRANSPORT INFORMATION

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The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

The presence of an RQ component (Reportable Quantity for U.S. DOT) in this product causes it to be regulated with an additional description of RQ for road, or as Environmentally hazardous for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

Land transport (DOT)

Proper shipping name : FLAMMABLE LIQUID, TOXIC, N.O.S.
Technical name(s) : Methanol, Isobutanol
UN/ID No. : UN 1992
Transport hazard class(es) : 3, 6.1
Packing group : II
Reportable Quantity (per package) : 7,250 lbs
RQ Component : Methanol

Air transport (IATA)

Proper shipping name : FLAMMABLE LIQUID, TOXIC, N.O.S.
Technical name(s) : Methanol, Isobutanol
UN/ID No. : UN 1992
Transport hazard class(es) : 3, 6.1
Packing group : II
Reportable Quantity (per package) : 7,250 lbs
RQ Component : Methanol

Sea transport (IMDG/IMO)

Proper shipping name : FLAMMABLE LIQUID, TOXIC, N.O.S.
Technical name(s) : Methanol, Isobutanol
UN/ID No. : UN 1992
Transport hazard class(es) : 3, 6.1
Packing group : II

Section: 15. REGULATORY INFORMATION

TSCA list : No substances are subject to a Significant New Use Rule.
No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methanol	67-56-1	5000	7260

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

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SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Skin corrosion or irritation
Serious eye damage or eye irritation
Germ cell mutagenicity
Specific target organ toxicity (single or repeated exposure)
Acute toxicity (any route of exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
Methanol	67-56-1	60 - 100 %
Ethylene Glycol	107-21-1	5 - 10 %

California Prop. 65

 **WARNING:** Reproductive Harm - www.P65Warnings.ca.gov

Methanol	67-56-1
Ethylene Glycol	107-21-1

INTERNATIONAL CHEMICAL CONTROL LAWS :

United States TSCA Inventory

On or in compliance with the active portion of the TSCA inventory.

Canadian Domestic Substances List (DSL)

The substance(s) in this preparation are included in or exempted from the Domestic Substance List (DSL).

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS)

not determined

Japan. ENCS - Existing and New Chemical Substances Inventory

not determined

Korea. Korean Existing Chemicals Inventory (KECI)

not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS)

not determined

China Inventory of Existing Chemical Substances

not determined

Taiwan Chemical Substance Inventory

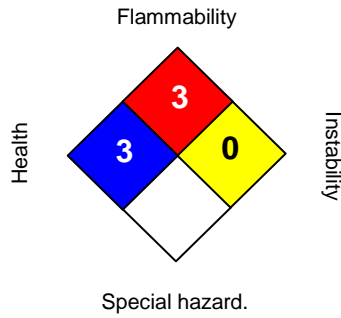
not determined

Section: 16. OTHER INFORMATION

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NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 04/27/2022
Version Number : 1.3
Prepared By : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.