



Safety Data Sheet

Version number: 10.1
SDS# K5003

2021-08-12

SECTION 1: Identification

1.1 Product identifier

Trade name **R-5005, R-5005A, R-5005B, R-5005C, R-5005D**
Other means of identification Hydrazine CHEMetrics® & VACUettes® Refills

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

Component of water analysis test kits: K-5005, K-5005A, K-5005B, K-5005C, K-5005D

1.3 Details of the supplier of the safety data sheet

CHEMetrics, Inc.
4295 Catlett Road
Midland VA 22728
United States

Telephone: 1-540-788-9026
Telefax: 1-540-788-4856
e-mail: technical@chemetrics.com
Website: www.chemetrics.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 GHS

Section	Hazard class	Category	Hazard class and category	Hazard statement
2.6	flammable liquid	3	Flam. Liq. 3	H226
2.16	substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302
3.1D	acute toxicity (dermal)	5	Acute Tox. 5	H313
3.1I	acute toxicity (inhal.)	5	Acute Tox. 5	H333
3.2	skin corrosion/irritation	1	Skin Corr. 1	H314
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
3.8	specific target organ toxicity - single exposure	1	STOT SE 1	H370
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labeling

- Signal word danger

- Pictograms

GHS02, GHS05, GHS07,
GHS08



- Hazard statements

H226	Flammable liquid and vapor.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H313+H333	May be harmful in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H370	Causes damage to organs.

- Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original packaging.
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 dusts or mists.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P312	IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P390	Absorb spillage to prevent material damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P406	Store in a corrosion resistant container with a resistant inner liner.
P501	Dispose of contents/container to industrial combustion plant.




SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
water	CAS No 7732-18-5	≥ 8		
ethylene glycol	CAS No 107-21-1	50 – 61	Acute Tox. 4 / H302	
hydrochloric acid	CAS No 7647-01-0	8 – 17	Skin Corr. 1B / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Met. Corr. 1 / H290	
methanol	CAS No 67-56-1	9 – 13	Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370 Flam. Liq. 2 / H225	
p-dimethylaminobenzaldehyde	CAS No 100-10-7	1		

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

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.

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. Substance or mixture corrosive to metals.

Hazardous combustion products

Nitrogen oxides (NO_x), 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.

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

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. Break the ampoule tip only when it is completely immersed in sample. Breaking the tip in air may cause the glass ampoule to shatter.

- 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. Never add water to this product. 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.

- Handling of incompatible substances or mixtures

Do not mix with alkali.

- Keep away from

Caustic solutions

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.

- Corrosive conditions

Store in corrosive resistant container with a resistant inner liner.

- 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.

- 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.

7.3 Other information

For optimum analytical performance, store in the dark and at room temperature.

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	ethylene glycol	107-21-1	REL							appx-D	NIOSH REL
US	ethylene glycol	107-21-1	TLV®				10			i, aerosol	ACGIH® 2021
US	ethylene glycol	107-21-1	PEL (CA)					40	100	vap	Cal/ OSHA PEL
US	ethylene glycol	107-21-1	TLV®	25		50				vap	ACGIH® 2021
US	methanol	67-56-1	TLV®	200		250				H	ACGIH® 2021
US	methyl alcohol	67-56-1	REL	200 (10 h)	260 (10 h)	250	325				NIOSH REL
US	methyl alcohol	67-56-1	PEL	200	260						29 CFR 1910.1000
US	methyl alcohol (methanol)	67-56-1	PEL (CA)	200	260	250	325	1,000			Cal/ OSHA PEL
US	hydrogen chloride	7647-01-0	REL					5	7		NIOSH REL
US	hydrogen chloride	7647-01-0	TLV®					2			ACGIH® 2021
US	hydrogen chloride	7647-01-0	PEL					5	7		29 CFR 1910.1000
US	hydrogen chloride (muriatic acid) (hydrochloric acid)	7647-01-0	PEL (CA)	0.3	0.45			2			Cal/ OSHA PEL

Notation

aerosol	as aerosols
appx-D	see Appendix D - Substances with No Established RELs
Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
i	inhalable fraction
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-weighted average (unless otherwise specified)
vap	as vapors

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
US	methanol	methanol		BEI®	15 mg/l	ACGIH® 2021

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ethylene glycol	107-21-1	DNEL	35 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
ethylene glycol	107-21-1	DNEL	106 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
ethylene glycol	107-21-1	PNEC	10 mg/l	aquatic organisms	freshwater	short-term (single instance)
ethylene glycol	107-21-1	PNEC	1 mg/l	aquatic organisms	marine water	short-term (single instance)
ethylene glycol	107-21-1	PNEC	199.5 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
ethylene glycol	107-21-1	PNEC	37 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
ethylene glycol	107-21-1	PNEC	3.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
ethylene glycol	107-21-1	PNEC	1.53 mg/kg	terrestrial organisms	soil	short-term (single instance)
methanol	67-56-1	PNEC	20.8 mg/l	aquatic organisms	freshwater	short-term (single instance)
methanol	67-56-1	PNEC	2.08 mg/l	aquatic organisms	marine water	short-term (single instance)
methanol	67-56-1	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
methanol	67-56-1	PNEC	77 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
methanol	67-56-1	PNEC	7.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
methanol	67-56-1	PNEC	100 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

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Product description CHEMets Refills: Sealed glass ampoules, 7 mm OD, for visual colorimetric water analysis. Each CHEMet™ ampoule contains approximately 0.2 - 0.5 mL of liquid reagent sealed under vacuum. Refills contain 30 ampoules, test kits contain 1 refill.

VACUettes Refills: Sealed glass ampoules, 7 mm OD, with small glass capillary attached, for visual colorimetric water analysis. Each VACUette™ ampoule contains approximately 0.2 - 0.5 mL of liquid reagent sealed under vacuum. Refills contain 30 ampoules, test kits contain 1 refill.

Appearance

Physical state	liquid
Color	pale yellow
Particle	not relevant (liquid)
Odor	odorless

Other safety parameters

pH (value)	<1 (acid)
Melting point/freezing point	-8 °C
Initial boiling point and boiling range	115 °C at 1,013 hPa
Flash point	51 °C at 1,013 hPa
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)

Explosive limits

- Lower explosion limit (LEL)	3.2 vol%
- Upper explosion limit (UEL)	15.3 vol%
Vapor pressure	169.3 hPa at 25 °C
Density	not determined
Vapor density	this information is not available
Relative density	1 (water = 1)

Solubility(ies)

- Water solubility	miscible in any proportion
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Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	398 °C
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

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. Substance or mixture corrosive to metals.

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.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

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)

Acute toxicity

Harmful if swallowed.

GHS of the United Nations, annex 4: May be harmful in contact with skin or if inhaled.

- Acute toxicity estimate (ATE)

Oral 769.2 mg/kg

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
methanol	67-56-1	oral	100 mg/kg
methanol	67-56-1	dermal	300 mg/kg
methanol	67-56-1	inhalation: vapor	3 mg/l/4h

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

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

Shall not be classified as carcinogenic.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
Name of substance	CAS No	Classification	Number
hydrochloric acid	7647-01-0	3	

Legend

3 Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Causes damage to organs. May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

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

Data are not available.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

please consider the relevant national or regional provisions

SECTION 14: Transport information

14.1 UN number

DOT UN 2920

IMDG-Code UN 2920

ICAO-TI UN 2920

14.2 UN proper shipping name

UN2920, Corrosive liquid, flammable, n.o.s., (contains: hydrochloric acid, methanol), 8 (3), II

DOT Corrosive liquid, flammable, n.o.s.

IMDG-Code CORROSIVE LIQUID, FLAMMABLE, N.O.S.

ICAO-TI Corrosive liquid, flammable, n.o.s.

Technical name (hazardous ingredients) hydrochloric acid, methanol

14.3 Transport hazard class(es)

DOT 8 (3)

IMDG-Code 8 (3)

ICAO-TI 8 (3)

14.4 Packing group

DOT II

IMDG-Code II

ICAO-TI II

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 CHEMetrics, may vary from the above information. Products that are regulated for transport will be packaged by CHEMetrics as Dangerous Goods in Excepted Quantities according to IATA, US DOT, and IMDG regulations. CHEMetrics 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 Transport in bulk according to Annex II of MARPOL and the IBC Code

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**

Reportable quantity (RQ) 29,412 lbs (13,353 kg) (hydrochloric acid) (methanol)

Danger label(s) 8+3



Special provisions (SP) B2, IB2, T11, TP2, TP27

ERG No 132

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant -

Danger label(s) 8+3



Special provisions (SP) 274

Excepted quantities (EQ) E2

Limited quantities (LQ) 1 L

EmS F-E, S-C

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

Danger label(s) 8+3



Excepted quantities (EQ) E2

Limited quantities (LQ) 0,5 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

Superfund Amendment and Reauthorization Act (SARA TITLE III)

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

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities				
Name of substance	CAS No	Notes	Reportable quantity (pounds)	Threshold planning quantity (pounds)
hydrochloric acid	7647-01-0	f	5,000	500

Legend

f Chemical on the original list that does not meet toxicity criteria but because of its acute lethality, high production volume and known risk is considered chemical of concern ("Other chemicals"). (November 17, 1986, and February 15, 1990.)

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substance	CAS No	Remarks	Effective date
methanol	67-56-1		1986-12-31
ethylene glycol	107-21-1		1986-12-31
hydrochloric acid	7647-01-0	acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size	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)
methanol	67-56-1		3 4	5000 (2270)
ethylene glycol	107-21-1		3	5000 (2270)
hydrochloric acid	7647-01-0		1 3	5000 (2270)

Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

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

Name of substance	CAS No	Type of registration	Basis for listing	Threshold quantity (lbs)
hydrochloric acid	7647-01-0	Toxic substance	a	5000
hydrochloric acid	7647-01-0	Toxic substance	d	15000

Legend

a Mandated for listing by Congress.

d Toxicity of hydrogen chloride, potential to release hydrogen chloride, and history of accidents.

Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
methanol	67-56-1		TE F3
ethylene glycol	107-21-1		
hydrochloric acid	7647-01-0		CO R1

Legend

CO	Corrosive
F3	Flammable - Third Degree
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
ethylene glycol (ethanediol)	107-21-1		developmental

Industry or sector specific available guidance(s)**NPCA-HMIS® III**

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
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).

Category	Degree of hazard	Description
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
AU	AICS	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	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

Legend

AICS	Australian Inventory of Chemical Substances
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
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.

SECTION 16: Other information, including date of preparation or last revision**Key literature references and sources for data**

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

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 chapter 2 and 3)

Code	Text
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs.

Disclaimer

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