



TX-5

Version number: 1.0

Date of compilation: 2023-05-09

SECTION 1: Identification

1.1 Product identifier

Trade name **TX-5**
Alternative name(s) Power Fresh

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

Relevant identified uses cleaning agent

1.3 Details of the supplier of the safety data sheet

Transchem Inc.
1225 Franklin Blvd.
Cambridge Ontario N1R 7E5
Canada

Telephone: +1.800.265.9100
e-mail: info@transchem.com
Website: https://transchem.com/

e-mail (competent person) kberzitis@transchem.com (Karl Berzitis)

1.4 Emergency telephone number

Emergency information service CANUTEC (Canada) 613-996-6666
INFOTRAC (U.S.) 1-800-535-5053

SECTION 2: Hazard 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	4	Flam. Liq. 4	H227
3.10	acute toxicity (oral)	4	Acute Tox. 4	H302
3.11	acute toxicity (Inhal.)	4	Acute Tox. 4	H332
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labeling

- Signal word danger

- Pictograms

GHS05, GHS07





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- Hazard statements

H227	Combustible liquid.
H302+H332	Harmful if swallowed or if inhaled.
H315	Causes skin irritation.
H318	Causes serious eye damage.

- Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
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.
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403	Store in a well-ventilated place.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

This material is combustible, but will not ignite readily.

Results of PBT and vPvB assessment

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

Endocrine disrupting properties

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

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
Alcohols, C9-11, ethoxylated	CAS No 68439-46-3	10 - < 30	Acute Tox. 4 / H302 Eye Dam. 1 / H318
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	CAS No 68424-85-1	5 - < 10	Acute Tox. 4 / H302 Acute Tox. 2 / H330 Skin Corr. 1B / H314 Eye Dam. 1 / H318
Amines, C10-16-alkyldimethyl, N-oxides	CAS No 70592-80-2	1 - < 5	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318
ethanol	CAS No 64-17-5	1 - < 5	Flam. Liq. 2 / H225

For full text of abbreviations: see SECTION 16.



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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.

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, 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

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.



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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

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

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

- 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.



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- 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.

- General rule

Keep out of reach of children. Store in a dry place. Store in a closed container. Store in a well-ventilated place. Keep away from ... (incompatible materials to be indicated by the manufacturer).

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted. 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 Specific end use(s)

See section 16 for a general overview.

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
CA	ethanol	64-17-5	OEL (BC)			1,000					"BC Regulation"
CA	ethanol	64-17-5	OEL (ON-MoL)			1,000					MoL
CA	ethanol (ethyl alcohol)	64-17-5	OEL (AB)	1,000	1,880						OHS Code
CA	ethyl alcohol	64-17-5	PEV/VEA			1,000					Regulation OHS

Notation

Ceiling-C
STEL

ceiling value is a limit value above which exposure should not occur
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)

Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Alcohols, C9-11, ethoxylated	68439-46-3	DNEL	294 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Alcohols, C9-11, ethoxylated	68439-46-3	DNEL	2,080 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	DNEL	3.96 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects



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Relevant DNELs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	DNEL	5.7 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Alcohols, C9-11, ethoxylated	68439-46-3	PNEC	0.104 mg/l	aquatic organisms	freshwater	short-term (single instance)
Alcohols, C9-11, ethoxylated	68439-46-3	PNEC	0.104 mg/l	aquatic organisms	marine water	short-term (single instance)
Alcohols, C9-11, ethoxylated	68439-46-3	PNEC	1.4 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Alcohols, C9-11, ethoxylated	68439-46-3	PNEC	13.7 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Alcohols, C9-11, ethoxylated	68439-46-3	PNEC	13.7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Alcohols, C9-11, ethoxylated	68439-46-3	PNEC	1 mg/kg	terrestrial organisms	soil	short-term (single instance)
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	PNEC	0.001 mg/l	aquatic organisms	freshwater	short-term (single instance)
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	PNEC	0.001 mg/l	aquatic organisms	marine water	short-term (single instance)
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	PNEC	0.4 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	PNEC	12.27 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	PNEC	13.09 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	PNEC	7 mg/kg	terrestrial organisms	soil	short-term (single instance)



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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

During spraying wear suitable respiratory equipment.

Environmental exposure controls

Avoid release to the environment. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	clear - colorless
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

pH (value)	7.5 - 10.5 (23 °C)
Melting point/freezing point	not determined
Initial boiling point and boiling range	not determined
Flash point	>60 - <93 °C
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	not determined
Density	not determined



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Vapor density	this information is not available
Relative density	0.99 at 23 °C (water = 1)
Solubility(ies)	not determined
Partition coefficient	
- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	not explosive (GHS of the United Nations, annex 4)
Oxidizing properties	none
9.2 Other information	there is no additional information

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.

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.



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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 GHS

Acute toxicity

Harmful if swallowed. Harmful if inhaled.

- Acute toxicity estimate (ATE)

Oral 1,688 mg/kg
Inhalation: dust/mist 2.75 mg/l/4h

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
Alcohols, C9-11, ethoxylated	68439-46-3	oral	500 mg/kg
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	oral	795 mg/kg
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	inhalation: dust/mist	0.22 mg/l/4h
Amines, C10-16-alkyldimethyl, N-oxides	70592-80-2	oral	>600 mg/kg

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Alcohols, C9-11, ethoxylated	68439-46-3	oral	LD50	<2,000 mg/kg	rat
Alcohols, C9-11, ethoxylated	68439-46-3	dermal	LD50	>2,000 mg/kg	rabbit
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	oral	LD50	795 mg/kg	rat
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	inhalation: dust/mist	LC50	0.22 mg/l/4h	rat
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	dermal	LD50	3,412 mg/kg	rabbit
Amines, C10-16-alkyldimethyl, N-oxides	70592-80-2	oral	LD50	>600 mg/kg	rat
Amines, C10-16-alkyldimethyl, N-oxides	70592-80-2	oral	LD50	>520 mg/kg	rabbit
ethanol	64-17-5	oral	LD50	10,470 mg/kg	rat
ethanol	64-17-5	inhalation: vapour	LC50	124.7 mg/l/4h	rat

Skin corrosion/irritation

Causes skin irritation.



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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 (WHO)

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
Name of substance	CAS No	Classification	Number
ethanol	64-17-5	1	

Legend

1 Carcinogenic to 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

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

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Alcohols, C9-11, ethoxylated	68439-46-3	LC50	7 mg/l	fish	96 h
Alcohols, C9-11, ethoxylated	68439-46-3	EC50	2.5 mg/l	aquatic invertebrates	48 h
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	LC50	0.515 mg/l	fish	96 h
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	EC50	0.016 mg/l	aquatic invertebrates	48 h



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Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	ErC50	0.03 mg/l	algae	96 h
Amines, C10-16-alkyldimethyl, N-oxides	70592-80-2	LC50	1,010 µg/l	daphnia magna	96 h
Amines, C10-16-alkyldimethyl, N-oxides	70592-80-2	LC50	2.6 – 3.5 mg/l	fish	96 h
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

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Alcohols, C9-11, ethoxylated	68439-46-3	EC50	140 mg/l	microorganisms	3 h
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	LC50	94 µg/l	fish	28 d
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	EC50	11 mg/l	microorganisms	30 min
ethanol	64-17-5	LC50	1,806 mg/l	aquatic invertebrates	10 d
ethanol	64-17-5	ErC50	675 mg/l	algae	4 d

12.2 Persistence and degradability

Biodegradation

The surfactant contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	oxygen depletion	63 %	28 d		ECHA



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Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	carbon dioxide generation	95.5 %	28 d		ECHA
ethanol	64-17-5	oxygen depletion	69 %	5 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Alcohols, C9-11, ethoxylated	68439-46-3	12.7		
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	68424-85-1	79	0.004 (20 °C)	
ethanol	64-17-5		-0.77	0.6211

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) 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

Dispose of contents/container in accordance with local/regional/national/international regulations.

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.



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SECTION 14: Transport information

14.1 UN number

UN RTDG	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

14.2 UN proper shipping name

UN RTDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.
Technical name (hazardous ingredients)	Amines, C10-16-alkyldimethyl, N-oxides, Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides

14.3 Transport hazard class(es)

UN RTDG	9
IMDG-Code	9
ICAO-TI	9

14.4 Packing group

UN RTDG	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

	hazardous to the aquatic environment
Environmentally hazardous substance (aquatic environment)	Amines, C10-16-alkyldimethyl, N-oxides, Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides

14.6 Special precautions for user

There is no additional information.

14.7 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 information - National regulations - Additional information (UN RTDG)

UN number	3082
Class	9
Environmental hazards	YES (hazardous to the aquatic environment)
Packing group	III
Danger label(s)	9, fish and tree





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Special provisions (SP) 274, 331, 335, 375 (UN RTDG)

Excepted quantities (EQ) E1 (UN RTDG)

Limited quantities (LQ) 5 L (UN RTDG)

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant YES (hazardous to the aquatic environment) (Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides)

Danger label(s) 9, fish and tree



Special provisions (SP) 274, 335, 969

Excepted quantities (EQ) E1

Limited quantities (LQ) 5 L

EmS F-A, S-F

Stowage category A

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

Environmental hazards YES (hazardous to the aquatic environment)

Danger label(s) 9, fish and tree



Special provisions (SP) A97, A158, A197, A215

Excepted quantities (EQ) E1

Limited quantities (LQ) 30 kg

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)

Right to Know Hazardous Substance List

- Cleaning Product Right to Know Act Substance List (CA-RTK)

Name of substance	CAS No	Functionality	Authoritative Lists
Quaternary ammonium compounds, benzyl C12-C16 (even numbered)-alkyldimethyl chlorides	8001-54-5		CECBP - Priority Chemicals

- Hazardous Substances List (MN-ERTK)



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Name of substance	CAS No	References	Remarks
ethanol	64-17-5	A, O	

Legend

- A American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices for 1992-93", available from ACGIH
- O Occupational Safety and Health Administration (OSHA), Safety and Health Standards, Code of Federal Regulations, title 29, part 1910, subpart Z, "Toxic and Hazardous Substances, 1990." General information: Minnesota Department of Labor and Industry, Occupational Safety and Health Division

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
ethanol	64-17-5		CA MU TE F3

Legend

- CA Carcinogenic
- F3 Flammable - Third Degree
- MU Mutagenic
- TE Teratogenic

- Hazardous Substance List (Chapter 323) (PA-RTK)

Name acc. to inventory	CAS No	Classification
ETHANOL	64-17-5	

- Hazardous Substance List (RI-RTK)

Name of substance	CAS No	References
ethanol	64-17-5	T, F

Legend

- F Flammability (NFPA®)
- T Toxicity (ACGIH®)

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	Conc.	Type of the toxicity
ethanol (ethyl alcohol)	64-17-5	1.5 wt%	developmental
ethylene oxide	75-21-8	0.00055 wt%	cancer
ethylene oxide	75-21-8	0.00055 wt%	female
ethylene oxide	75-21-8	0.00055 wt%	developmental, male

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.



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Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
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 regulations (Canada)

Domestic Substances List (DSL)

All ingredients are listed.

National inventories

Country	Inventory	Status
CA	DSL	all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

Legend

DSL Domestic Substances List (DSL)
REACH Reg. REACH registered substances
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

Abbreviations and acronyms



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Abbr.	Descriptions of used abbreviations
"BC Regulation"	OHS Regulation: Section 5.48 (British Columbia)
ACGIH®	American Conference of Governmental Industrial Hygienists
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
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
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
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
IARC Monographs	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
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
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
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
MoL	Ministry of Labor: Current Occupational Exposure Limits for Ontario Workplaces Required under Regulation 833
NFPA®	National Fire Protection Association (United States)



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Abbr.	Descriptions of used abbreviations
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OHS Code	Occupational Health and Safety Code: Occupational exposure limits for chemical substances (Alberta)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Regulation OHS	Regulation respecting occupational health and safety: Permissible exposure values for airborne contaminants (Quebec)
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
TWA	Time-weighted average
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Hazardous Products Regulations (HPR).

UN Recommendations on the Transport of Dangerous Good. 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.
H227	Combustible liquid.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.

Disclaimer

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