Soleris® Confirmation Kit, Kovac's Reagent

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 09-02-2025 Revision date: 06-12-2026 Supersedes: 09-02-2025 Version: 2.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Soleris® Confirmation Kit, Kovac's Reagent
Type of product : Food Safety -- [Food Safety]
Product code : KO-122

1.2. Other means of identification

Part Number(s) : KO-122|700002936

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals,Scientific research and development

1.4. Supplier's details

Manufacturer
Neogen Corporation
620 Lesher Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
sds@neogen.com - https://www.neogen.com/

1.5. Emergency phone number

Emergency number : 24 hours:
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable liquids, Category 3	H226	Flammable liquid and vapor.
Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Acute toxicity (inhalation:dust,mist), Category 3	H331	Toxic if inhaled.
Skin corrosion/irritation, Category 1	H314	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	H318	Causes serious eye damage.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.
Hazardous to the aquatic environment, Acute Hazard, Category 3	H402	Harmful to aquatic life.
Hazardous to the aquatic environment, Chronic Hazard, Category 3	H412	Harmful to aquatic life with long lasting effects.

Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :

Signal word (GHS CA)	:	Danger
Hazard statements (GHS CA)	:	H226 - Flammable liquid and vapor H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H331 - Toxic if inhaled H335 - May cause respiratory irritation H402 - Harmful to aquatic life H412 - Harmful to aquatic life with long lasting effects
Precautionary statements (GHS CA)	:	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 equipment. P242 - Use non-sparking tools. P243 - Take action to prevent static discharges. P260 - Do not breathe dust, fume, gas, mist, vapors, spray. P264 - Wash hands, forearms 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. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection. P301+P312 - IF SWALLOWED: Call a POISON CENTER or a doctor if you feel unwell. 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 . 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 or a doctor. P311 - Call a POISON CENTER or a doctor. P312 - Call a POISON CENTER or a doctor if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P330 - Rinse mouth. P333+P313 - If skin irritation or rash occurs: Get medical advice or attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P363 - Wash contaminated clothing before reuse. P370+P378 - In case of fire: Use appropriate media to extinguish. 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. P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
1-Pentanol	1-Pentanol 1-amyl alcohol / 1-pentanol / 1-pentyl alcohol / alcohol C5 / amyl alcohol / amyl alcohol, normal / amylol / butylcarbinol / n-amyl alcohol / n-butylcarbinol / normal-amyl alcohol / normal-butylcarbinol / normal-pentanol / normal-pentylalcohol / n-pentan-1-ol / n-pentanol / n-pentyl alcohol / pentan-1-ol / pentanol (=1-pentanol) / pentasol (=1-pentanol) / pentyl alcohol / primary normal-amyl alkohol / primary-amyl alcohol / prim-n-amyl alkohol	CAS-No.: 71-41-0	≥ 50 – < 75	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 STOT SE 3, H335
Hydrochloric acid	Hydrogen chloride hydrochloric acid , conc= 30%, aqueous solution / hydrochloric-acid- / WATERSTOFCHLORIDE, 30% IN WATER	CAS-No.: 7647-01-0	≥ 15 – < 25	Acute Tox. 3 (Oral), H301 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Corr. 1, H314 Eye Dam. 1, H318

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
4-(Dimethylamino) benzaldehyde	p-(Dimethylamino)benzaldehyde ; 4-Dimethylaminobenzenecarbonal 4-(N,N-dimethylamino)benzaldehyde / 4-dimethylaminobenzaldehyde / 4-dimethylaminobenzenecarbonal / benzaldehyde, 4-(dimethylamino)- / dimethylaminobenzaldehyde / ehrlich's reagent / para-dimethylaminobenzaldehyde / para-formyldimethylanilline / p-dimethylaminobenzaldehyde / p-formyldimethylanilline	CAS-No.: 100-10-7	≥ 5 – < 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a doctor.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

First-aid measures general : Call a physician immediately.

Personal protection for first-aid responders. : First-aiders should consider self-protection and use the recommended personal protective equipment (see section 8).

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : Toxic if inhaled. May cause respiratory irritation.

Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Harmful if swallowed. Burns.

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

Other medical advice or treatment : Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	:	Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	:	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Flammable liquid and vapor.
Explosion hazard	:	No direct explosion hazard.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Firefighting instructions	:	Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
Environmental precautions	:	Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

For containment	:	Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up	:	Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	:	Dispose of materials or solid residues at an authorized site.

For further information refer to section 13.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
Hygiene measures	:	Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
Storage temperature	:	2 – 8
Packaging materials	:	Always store product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Hydrochloric acid (7647-01-0)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	3 mg/m³
	2 ppm
Notations and remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Hydrogen chloride # Chlorure d'hydrogène (Acide chlorhydrique)
Plafond (OEL C)	2 ppm RP
Notations and remarks	RP
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety # S-2.1, r. 13 - Règlement sur la santé et la sécurité du travail
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Notations and remarks	TLV® Basis: Irritation; Corrosion. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Notations and remarks	URT irr
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Notations and remarks	TLV® Basis: Irritation; Corrosion. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Notations and remarks	TLV® Basis: Irritation; Corrosion. Notations: A4 (Not classifiable as a Human Carcinogen)

Hydrochloric acid (7647-01-0)	
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Regulatory reference	Occupational Health and Safety Act, R.S.O. 1990, c. O.1 - R.R.O. 1990, Reg. 833: Control of exposure to biological or chemical agents
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Notations and remarks	TLV® Basis: Irritation; Corrosion. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Hydrogen chloride
OEL C	2 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Colorless Light yellow
Odor	:	Alcoholic
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	Not applicable
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	> 23 – < 60 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	No data available
Solubility	:	Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Explosion limits	:	No data available
Particle characteristics	:	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

Reactivity	:	Flammable liquid and vapor.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	:	No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Inhalation:dust,mist: Toxic if inhaled.

Soleris® Confirmation Kit, Kovac's Reagent	
ATE CA (oral)	785.951 mg/kg body weight
ATE CA (dust,mist)	0.957 mg/l/4h
Unknown acute toxicity (GHS CA)	5% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 5% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 5% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

1-Pentanol (71-41-0)	
LD50 oral rat	3645 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 oral	2690 mg/kg
LD50 dermal rabbit	2292 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))
LD50 dermal	2000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	21 mg/l/4h
ATE CA (oral)	2690 mg/kg body weight
ATE CA (Dermal)	2000 mg/kg body weight
ATE CA (Gases)	4500 ppmV/4h
ATE CA (vapors)	11 mg/l/4h
ATE CA (dust,mist)	1.5 mg/l/4h

Hydrochloric acid (7647-01-0)	
LD50 oral rat	238 – 277 mg/kg
LD50 oral	238 mg/kg
LD50 dermal rabbit	> 5010 mg/kg Source: ECHA
LD50 dermal	5010 mg/kg
LC50 Inhalation - Rat	8.3 mg/l Source: ECHA
LC50 Inhalation - Rat [ppm]	1411 ppm
LC50 Inhalation - Rat (Dust/Mist)	0.42 mg/l/4h
LC50 Inhalation - Rat (Vapors)	8.3 mg/l
ATE CA (oral)	238 mg/kg body weight
ATE CA (Dermal)	5010 mg/kg body weight
ATE CA (Gases)	1411 ppmV/4h
ATE CA (vapors)	8.3 mg/l/4h
ATE CA (dust,mist)	0.42 mg/l/4h

4-(Dimethylamino) benzaldehyde (100-10-7)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))

Skin corrosion/irritation : Causes severe skin burns.

1-Pentanol (71-41-0)	
pH	No data available in the literature

Hydrochloric acid (7647-01-0)	
pH	< 1

4-(Dimethylamino) benzaldehyde (100-10-7)	
pH	No data available in the literature

Serious eye damage/irritation : Causes serious eye damage.

1-Pentanol (71-41-0)	
pH	No data available in the literature

Hydrochloric acid (7647-01-0)	
pH	< 1

4-(Dimethylamino) benzaldehyde (100-10-7)	
pH	No data available in the literature

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Hydrochloric acid (7647-01-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

1-Pentanol (71-41-0)	
NOAEL (animal/male, F0/P)	405 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)
NOAEL (animal/female, F0/P)	1521 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 443 (Extended One-Generation Reproductive Toxicity Study)

STOT-single exposure : May cause respiratory irritation.

1-Pentanol (71-41-0)	
STOT-single exposure	May cause respiratory irritation.

4-(Dimethylamino) benzaldehyde (100-10-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Hydrochloric acid (7647-01-0)	
LOAEC (inhalation,rat,gas,90 days)	50 ppm
NOAEC (inhalation,rat,gas,90 days)	20 ppm

Aspiration hazard : Not classified

1-Pentanol (71-41-0)	
Viscosity, kinematic	4.25 mm²/s (25 °C, Calculated)

Hydrochloric acid (7647-01-0)	
Viscosity, kinematic	1.491 – 1.754 mm²/s

4-(Dimethylamino) benzaldehyde (100-10-7)	
Viscosity, kinematic	Not applicable (solid)

Symptoms/effects after inhalation : Toxic if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact : Burns. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Harmful if swallowed. Burns.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Harmful to aquatic life.
Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

1-Pentanol (71-41-0)	
LC50 - Fish [1]	530 mg/l (96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	341.21 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	> 353 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	113 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

4-(Dimethylamino) benzaldehyde (100-10-7)	
LC50 - Fish [1]	45.7 mg/l (96 h, Pisces, Literature study)
EC50 - Crustacea [1]	1.58 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	72.7 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
EC50 72h - Algae [1]	72.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	41.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	92.705 mg/l Source: ECOSAR

12.2. Persistence and degradability

Soleris® Confirmation Kit, Kovac's Reagent	
Persistence and degradability	Not rapidly degradable

1-Pentanol (71-41-0)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.28 g O_2/g substance

1-Pentanol (71-41-0)	
ThOD	2.73 g O_2/g substance

Hydrochloric acid (7647-01-0)	
Persistence and degradability	Biodegradability: not applicable.

4-(Dimethylamino) benzaldehyde (100-10-7)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

1-Pentanol (71-41-0)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	1.51 (Experimental value, 25 °C)

Hydrochloric acid (7647-01-0)	
Bioaccumulative potential	Does not contain bioaccumulative component(s).
Partition coefficient n-octanol/water (Log Pow)	0.25 Source: ICSC

4-(Dimethylamino) benzaldehyde (100-10-7)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	1.8 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)

12.4. Mobility in soil

1-Pentanol (71-41-0)	
Mobility in soil	160 Source: National Library of Medicine/Hazardous Substances Data Bank
Surface tension	26 mN/m (20 °C)
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.8 (log Koc, SRC PCKOCWIN v2.0, QSAR)

Hydrochloric acid (7647-01-0)	
Ecology - soil	No (test)data on mobility of the component(s) available. May be harmful to plant growth, blooming and fruit formation.

4-(Dimethylamino) benzaldehyde (100-10-7)	
Surface tension	65 mN/m (20 °C, 0.38 %, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 – 1.632 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Regional waste regulation	:	Disposal must be done according to official regulations.
Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	:	Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	:	Disposal must be done according to official regulations.
Additional information	:	Flammable vapors may accumulate in the container. Do not re-use empty containers.
Ecological waste information	:	The waste of the product should be considered as hazardous as the product itself, with the likelihood of impacting the environment in the same way. Consider the handling and disposal of the waste as defined by the product itself.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
UN2924	UN2924	2924	2924
14.2. UN Proper Shipping Name			
FLAMMABLE LIQUID, CORROSIVE, N.O.S. (1-Pentanol, Hydrochloric acid)	Flammable liquids, corrosive, n.o.s. (1-Pentanol, Hydrochloric acid)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (1-Pentanol, Hydrochloric acid)	Flammable liquid, corrosive, n.o.s. (1-Pentanol, Hydrochloric acid)
Transport document description			
UN2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (1-Pentanol, Hydrochloric acid), 3 (8), III	UN2924 Flammable liquids, corrosive, n.o.s. (1-Pentanol, Hydrochloric acid), 3 (8), III	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (1-Pentanol, Hydrochloric acid), 3 (8), III	UN 2924 Flammable liquid, corrosive, n.o.s. (1-Pentanol, Hydrochloric acid), 3 (8), III
14.3. Transport hazard class(es)			
3 (8)	3 (8)	3 (8)	3 (8)
			
14.4. Packing group, if applicable			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

TDG

UN-No. (TDG) : UN2924

TDG Special Provisions	:	16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS.
Explosive Limit and Limited Quantity Index	:	5 L
Excepted quantities (TDG)	:	E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	5 L
Emergency Response Guide (ERG) Number	:	132

DOT

UN-No. (DOT)	:	UN2924
DOT Special Provisions (49 CFR 172.102)	:	B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	150
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’

IMDG

Special provision (IMDG)	:	223, 274
Limited quantities (IMDG)	:	5 L

Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP1, TP28
EmS-No. (Fire)	:	F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	:	S-C - SPILLAGE SCHEDULE Charlie - FLAMMABLE CORROSIVE LIQUIDS
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW2
Properties and observations (IMDG)	:	Causes burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y342
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	354
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	365
CAO max net quantity (IATA)	:	60L
Special provision (IATA)	:	A3, A803
ERG code (IATA)	:	3C

14.7. Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]

Not applicable

SECTION 15 Regulatory information

1-Pentanol (71-41-0)

Listed on the Canadian DSL (Domestic Substances List)

Hydrochloric acid (7647-01-0)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags	Significant New Activity (SNAc) provisions of the Act apply

1-Pentanol (71-41-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

Hydrochloric acid (7647-01-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date	:	09-02-2025
Revision date	:	06-12-2026
Supersedes	:	09-02-2025

Full text of hazard classes and H-statements:	
H226	Flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), Canada

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.