iTag Solution # 1 Concentrate

Part Number: 600551

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015) & US HazCom 2024
Issue date: December 2025 Version: A

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : iTag Solution # 1 Concentrate
Product code : 558175

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Dye
Restrictions on use : No additional information available

1.4. Supplier's details

CEM Corporation
3100 Smith Farm Road
Matthews, NC 28104
Tel: 1-800-726-3331
Email: info@cem.com

1.5. Emergency phone number

Emergency number : 704-821-7015
8:30 – 17:00 (ET)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS US classification according to US HazCom 2024

Acute toxicity (dermal), Category 4	Harmful in contact with skin.
Skin corrosion/irritation, Category 1	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	Causes serious eye damage.

GHS CA classification according to the Hazardous Products Regulation (February 11, 2015)

Acute toxicity (dermal), Category 4	Harmful in contact with skin.
Skin corrosion/irritation, Category 1	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation, Category 1	Causes serious eye damage.

2.2. GHS label elements, including precautionary statements

GHS US labeling according to US HazCom 2024

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : Harmful in contact with skin
Causes severe skin burns and eye damage

Precautionary statements (GHS US) : Do not breathe dusts or mists.
Wash hands, forearms and face thoroughly after handling.
Wear eye protection, protective gloves, protective clothing.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin: Wash with plenty of water.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center or doctor.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

GHS CA labelling according to the Hazardous Products Regulation (February 11, 2015)

Hazard pictograms (GHS CA) :

Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : Harmful in contact with skin
Causes severe skin burns and eye damage

Precautionary statements (GHS CA) : Do not breathe mist, spray, vapours.
Wash hands, forearms and face thoroughly after handling.
Wear eye protection, protective gloves, protective clothing.
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or a doctor.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Store locked up.
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)
Acetic acid	Acetic acid … % Acetic acid, glacial / Ethanoic acid / Ethylic acid / Vinegar acid / ACETIC ACID / Acetic acid solution / Acetic acid ...% / Acetic acid ... %	CAS-No.: 64-19-7	≈ 56	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318

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. Allow affected person to breathe fresh air. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact : Wash off immediately and plentifully with water for at least 20 minutes. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical attention if ill effect or irritation develops.

First-aid measures after eye contact : Wash immediately with plenty water (during 20 minutes), also under eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact : Causes severe burns. Harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye damage.

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

Note to physician : Treat symptomatically. Treat as thermal burns.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard : On combustion, forms: carbon oxides (CO and CO2).

Explosion hazard : No hazard identified.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Thermal decomposition may produce : Carbon oxides (CO, CO2).

5.3. Special protective actions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist, vapors, spray. Avoid contact with skin, eyes and clothing.

For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

Environmental precautions : Avoid (direct) release (of undiluted product) to the environment/sewage system. Prevent entry to sewers and public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Absorb spilled material with sand or earth.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Other information : Dispose of in a safe manner in accordance with local/national regulations.

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13 : "Disposal considerations".

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe mist, vapours, spray. Avoid contact with skin, eyes and clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Store locked up.

Incompatible materials : Strong oxidizing agents. Strong acids. Strong bases.

Specific end uses : For further information see section 1.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Acetic acid (64-19-7)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	25 mg/m³
OEL TWA	10 ppm
OEL STEL	37 mg/m³
OEL STEL	15 ppm
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Acetic acid
VECD (OEL STEV)	37 mg/m³

Acetic acid (64-19-7)	
VECD (OEL STEV)	15 ppm
VEMP (OEL TWAEV)	25 mg/m³
VEMP (OEL TWAEV)	10 ppm
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	10 ppm
OEL STEL	15 ppm
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	25 mg/m³
OEL TWA	10 ppm
OEL STEL	37 mg/m³
OEL STEL	15 ppm
Notations and remarks	TLV® Basis: Sensory irr; Burns (chemical); Pulm func
Regulatory reference	ACGIH 2025
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	10 ppm
OEL STEL	15 ppm
Notations and remarks	URT & eye irr; pulm func
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	25 mg/m³
OEL TWA	10 ppm
OEL STEL	37 mg/m³
OEL STEL	15 ppm
Notations and remarks	TLV® Basis: Sensory irr; Burns (chemical); Pulm func
Regulatory reference	ACGIH 2025
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	25 mg/m³
OEL TWA	10 ppm
OEL STEL	37 mg/m³
OEL STEL	15 ppm
Notations and remarks	TLV® Basis: Sensory irr; Burns (chemical); Pulm func

Acetic acid (64-19-7)	
Regulatory reference	ACGIH 2025
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	10 ppm
OEL STEL	15 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	10 ppm
OEL STEL	15 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWAEV	10 ppm
OEL TWAEV	15 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	Acetic acid
OEL TWA	25 mg/m³
OEL TWA	10 ppm
OEL STEL	37 mg/m³
OEL STEL	15 ppm
Notations and remarks	TLV® Basis: Sensory irr; Burns (chemical); Pulm func
Regulatory reference	ACGIH 2025
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Acetic acid
OEL TWA	10 ppm
OEL STEL	15 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10
Canada (Yukon) - Occupational Exposure Limits	
OEL TWA	25 mg/m³
OEL TWA	10 ppm
OEL STEL	43 mg/m³
OEL STEL	25 ppm
USA - ACGIH - Occupational Exposure Limits	
Local name	Acetic acid

Acetic acid (64-19-7)	
ACGIH® TLV® TWA	25 mg/m³
ACGIH® TLV® TWA	10 ppm
ACGIH® TLV® STEL	37 mg/m³
ACGIH® TLV® STEL	15 ppm
Remark (ACGIH®)	TLV® Basis: Sensory irr; Burns (chemical); Pulm func
Regulatory reference	ACGIH 2025
USA - OSHA - Occupational Exposure Limits	
Local name	Acetic acid
OSHA PEL TWA	25 mg/m³
OSHA PEL TWA	10 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - Cal/OSHA - Occupational Exposure Limits	
Local name	Acetic acid
Cal/OSHA PEL (OEL TWA)	25 mg/m³
Cal/OSHA PEL (OEL TWA)	10 ppm
Cal/OSHA STEL	37 mg/m³
Cal/OSHA STEL	15 ppm
Cal/OSHA C	40 ppm
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)
USA - IDLH - Occupational Exposure Limits	
IDLH	50 ppm
USA - NIOSH - Occupational Exposure Limits	
Local name	Acetic acid
NIOSH REL TWA	25 mg/m³
NIOSH REL TWA	10 ppm
NIOSH REL 10h TWA	10 ppm
NIOSH REL STEL	37 mg/m³
NIOSH REL STEL	15 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))
Monitoring methods	
Monitoring methods	No additional information available.

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Eyewash bottle with clean water.

Environmental exposure controls : Avoid (direct) release (of undiluted product) to the environment/sewage system.

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

Personal protective equipment:
Avoid all unnecessary exposure.

Hand protection:
Chemically resistant protective gloves. Nitrile rubber gloves. ISO 374-1. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer

Eye protection:
Safety glasses with side shields. ISO 16321-1

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable respiratory equipment in case of insufficient ventilation. Approved organic vapour respirator. Use respiratory protective devices as per ISO 16975-1:2016 recommendations.

Other information:
Do not eat, drink or smoke during use.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No data available
Colour	:	Dark red or orange
Odour	:	Not available
Odour threshold	:	No data available
pH	:	1
Relative evaporation rate (butylacetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	> 100 °C
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapour pressure	:	No data available
Relative vapour density at 20°C	:	No data available
Relative density	:	1.01
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Explosive 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 : The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability : The product is stable at normal handling and storage conditions.
Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.
Conditions to avoid : Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials : Strong oxidizing agents. Strong acids. Strong bases.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Carbon oxides (CO, CO2).
Hardening time: : No additional information available

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

iTag Solution # 1 Concentrate	
ATE CA (Dermal)	1892.857 mg/kg bodyweight

Acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg (Source: JAPAN_GHS)
LD50 oral	3310 mg/kg bodyweight
LD50 dermal rabbit	1060 mg/kg (Source: JAPAN_GHS)
LD50 dermal	1060 mg/kg bodyweight
LC50 Inhalation - Rat	11.4 mg/l/4h
LC50 Inhalation - Rat [ppm]	16000 ppm Source: ChemIDPlus
ATE CA (oral)	3310 mg/kg bodyweight
ATE CA (Dermal)	1060 mg/kg bodyweight
ATE CA (Gases)	16000 ppmv/4h
ATE CA (vapours)	11.4 mg/l/4h
ATE CA (dust,mist)	11.4 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
pH: 1
Serious eye damage/irritation : Causes serious eye damage.
pH: 1
Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Acetic acid (64-19-7)	
NOAEL (oral, rat, 90 days)	290 mg/kg bodyweight Animal: rat, Animal sex: male

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Acetic acid (64-19-7)	
Viscosity, kinematic	1.011 mm²/s

Symptoms/effects after skin contact : Causes severe burns. Harmful in contact with skin.

Symptoms/effects after eye contact : Causes serious eye damage.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12 Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not a OSHA HazCom 2024 hazard endpoint /Not a WHMIS 2022 hazard endpoint

Hazardous to the aquatic environment, long–term (chronic) : Not a OSHA HazCom 2024 hazard endpoint /Not a WHMIS 2022 hazard endpoint

Acetic acid (64-19-7)	
LC50 - Fish [1]	79 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
LC50 - Fish [2]	75 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	65 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Crustacea [2]	> 300.82 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [1]	> 1000 mg/l waterflea
ErC50 algae	> 1000 mg/l
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): Skeletonema costatum
EC50 72h - Algae [2]	> 300.82 mg/l Test organisms (species): Skeletonema costatum

12.2. Persistence and degradability

iTag Solution # 1 Concentrate	
Persistence and degradability	Not established.

Acetic acid (64-19-7)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

iTag Solution # 1 Concentrate	
Bioaccumulative potential	Not established.

Acetic acid (64-19-7)	
Partition coefficient n-octanol/water (Log Pow)	-0.17 (at 25 °C (at pH 7)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not a OSHA HazCom 2024 hazard endpoint /Not a WHMIS 2022 hazard endpoint

Other information : Avoid (direct) release (of undiluted product) to the environment/sewage system.

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations.

Ecological waste information : Avoid release to the environment.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
UN1760	UN1760	1760	1760
14.2. UN Proper Shipping Name			
CORROSIVE LIQUID, N.O.S. (Acetic acid)	Corrosive liquids, n.o.s. (Acetic acid)	CORROSIVE LIQUID, N.O.S. (Acetic acid)	Corrosive liquid, n.o.s. (Acetic acid)
14.3. Transport hazard class(es)			
8 (LTD QTY)	8 (LTD QTY)	8 (LTD QTY)	8 (LTD QTY)
			
14.4. Packing group, if applicable			
I	I	I	I
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

Consult the associated transport regulations for available and applicable exceptions or exemptions.

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The suitable shipping classification must be evaluated at the time of shipment due to the possibility for variations in regard to the transportation of this material considering the requirements, modes of transport, packaging, packaging configuration, quantity etc. Please consult the appropriate regulation for specific shipping information and requirements.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation information can be obtained through the authorized transporting corporation. It is the responsibility of the transporting corporation to follow all applicable laws, regulations and rules relating to the transportation of this product.

14.6. Special precautions for user

TDG

UN-No. (TDG) : UN1760

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.
ERAP Index	:	3000
Explosive Limit and Limited Quantity Index	:	0
Excepted quantities (TDG)	:	E0
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	0.5 L
Emergency Response Guide (ERG) Number	:	154

DOT

UN-No. (DOT)	:	UN1760
DOT Special Provisions (49 CFR 172.102)	:	A7 - Steel packagings must be corrosion-resistant or have protection against corrosion. B10 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks, and DOT 57 portable tanks are not authorized. T14 - 6 6 mm Prohibited 178.275(g)(3). TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 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 Non Bulk (49 CFR 173.xxx)	:	201
DOT Packaging Bulk (49 CFR 173.xxx)	:	243
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	0.5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	2.5 L
DOT Vessel Stowage Location	:	B - (i) The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ‘‘On deck only’’ on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’

IMDG

Special provisions (IMDG)	:	274

Limited quantities (IMDG)	:	0
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P001
Tank instructions (IMDG)	:	T14
Tank special provisions (IMDG)	:	TP2, TP27
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	:	B
Stowage and handling (IMDG)	:	SW2
Properties and observations (IMDG)	:	Causes burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	850
PCA max net quantity (IATA)	:	0.5L
CAO packing instructions (IATA)	:	854
CAO max net quantity (IATA)	:	2.5L
Special provisions (IATA)	:	A3, A803
ERG code (IATA)	:	8L

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

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Acetic acid	64-19-7	Present	Active	

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Acetic acid (64-19-7)	
CERCLA RQ	5000 lb

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Acetic acid(64-19-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Minnesota - Hazardous Substance List; U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

Acetic acid (64-19-7)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16 Other Information

according to the Hazardous Products Regulation (February 11, 2015) & US HazCom 2024.

Issue date : December 2025

Other information : None.

Safety Data Sheet (SDS), Canada & USA

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.