HG scale away concentrate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 2021-10-31 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Product name : HG scale away concentrate
Type of product : Detergent
Product code : 100 ART
Product group : Trade product

1.2. Recommended use and restrictions on use

Recommended use : Cleaning agent

1.3. Supplier

ManufacturerHG
International B.V. P.J.
Oudweg 41 Almere, 1314
CJ The Netherlands T +31
(0)36 54 94
700safety@hg.eu -
www.hg.eu

Distributor
Toolway Industries Ltd.
1-280 Hunter's Valley Road
Woodbridge, On L4H 3V9
Canada

1.4. Emergency telephone number

Country	Organization/Company	Address	Emergency number	
Canada	Canutec		1-888-CANUTEC (226-8832) (North American) 1-613-996-6666 (International use)	Toll Free (800) 255 3924 (24h)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable liquids Category 4	H227	Combustible liquid
Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage

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) : H227 - Combustible liquid
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS CA) : P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 - Do not breathe vapors, mist, spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear eye protection, protective gloves, protective clothing.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
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, a doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use dry extinguishing powder, carbon dioxide (CO2), foam, sand to extinguish.
P403 - Store in a well-ventilated place.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Phosphoric acid	Acids	CAS-No.: 7664-38-2	≥ 15 – < 25	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314
Isopropyl alcohol	Alcohols	CAS-No.: 67-63-0	≥ 2 – < 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
Tridecanol, branched, ethoxylated (2-5 EO)	Fattyalcohol ethoxylates	CAS-No.: 69011-36-5	≥ 1 – < 2	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 2, H401

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact : Immediately rinse with water for a prolonged period while holding the eyelids wide open. 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. Loosen tight clothing such as a collar, tie, belt or waistband. Call a physician immediately.

First-aid measures general : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Burns.

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

Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, 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. Sand.

5.2. Unsuitable extinguishing media

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

5.3. Specific hazards arising from the hazardous product

Fire hazard : Combustible liquid.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Phosphorus oxides.

5.4. Special protective equipment and precautions for fire-fighters

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

No additional information available

6.2. Methods and materials for containment and cleaning up

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.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Hygiene measures : Wash contaminated clothing before reuse. 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

Storage conditions : Store in a well-ventilated place. Keep cool. Store locked up.

Heat-ignition : Keep away from heat and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Phosphoric acid (7664-38-2)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
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 87/2009 (Alberta Regulation 150/2020)
Canada (Quebec) - Occupational Exposure Limits	
Local name	Phosphoric acid
VECD (OEL STEL)	3 mg/m³
VEMP (OEL TWA)	1 mg/m³
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	Phosphoric acid

Phosphoric acid (7664-38-2)	
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Notations and remarks	URT, eye, & skin irr
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-013-2020)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH

Phosphoric acid (7664-38-2)	
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Phosphoric acid
OEL TWA	1 mg/m³
OEL STEL	3 mg/m³
Regulatory reference	The Occupational Health and Safety Regulations, 1996. Chapter O-1.1 Reg 1

Isopropyl alcohol (67-63-0)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	2-Propanol (Isopropyl alcohol, isopropanol)
OEL TWA	492 mg/m³
OEL TWA [ppm]	200 ppm
OEL STEL	984 mg/m³
OEL STEL [ppm]	400 ppm
Regulatory reference	Alberta Regulation 87/2009 (Alberta Regulation 150/2020)
Canada (Quebec) - Occupational Exposure Limits	
Local name	Isopropyl alcohol
VECD (OEL STEL)	1230 mg/m³
VECD (OEL STEL) [ppm]	500 ppm
VEMP (OEL TWA)	985 mg/m³
VEMP (OEL TWA) [ppm]	400 ppm
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Isopropanol (Isopropyl alcohol, 2-Propanol)
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	2-Propanol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Notations and remarks	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH
Canada (New Brunswick) - Occupational Exposure Limits	
Local name	2-Propanol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Notations and remarks	Eye & URT irr; CNS impair

Isopropyl alcohol (67-63-0)	
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	2-Propanol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Notations and remarks	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	2-Propanol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Notations and remarks	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-013-2020)
Canada (Ontario) - Occupational Exposure Limits	
Local name	2-Propanol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	2-Propanol
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Notations and remarks	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Isopropyl alcohol

Isopropyl alcohol (67-63-0)	
OEL TWA [ppm]	200 ppm
OEL STEL [ppm]	400 ppm
Regulatory reference	The Occupational Health and Safety Regulations, 1996. Chapter O-1.1 Reg 1

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/Personal protective equipment

Personal protective equipment:
Safety glasses. Gloves. Protective clothing. Protective shoes.

Hand protection:				
Protective gloves				
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.35	
Disposable gloves	butyl rubber	6 (> 480 minutes)	0.5	

Eye protection:		
Safety glasses with side shields. EN 166		
Type	**Field of application**	**Characteristics**
Safety glasses	Normal use conditions	

Skin and body protection:
Long sleeved protective clothing. Chemical resistant safety shoes

Respiratory protection:
No respiratory protection needed under normal use conditions

Personal protective equipment symbol(s):

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : No data available

Color	:	Colorless
Odor	:	Fresh
Odor threshold	:	No data available
pH	:	0.3
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	62 °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	:	1.14
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Explosion limits	:	No data available

9.2. Other information

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	:	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	:	Attacks many metals releasing highly flammable gas (hydrogen) which generates fire or explosion hazards. Slightly reactive or incompatible with the following materials: Alkalines.
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. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Phosphoric acid (7664-38-2)	
LD50 oral rat	3500 mg/kg
LD50 oral	1530 mg/kg body weight
LD50 dermal rabbit	2740 mg/kg
LD50 dermal	2740 mg/kg body weight
ATE CA (oral)	1530 mg/kg body weight
ATE CA (Dermal)	2740 mg/kg body weight

Tridecanol, branched, ethoxylated (2-5 EO) (69011-36-5)	
LD50 oral	> 2000 mg/kg body weight
LD50 dermal	> 2000 mg/kg body weight
ATE CA (oral)	500 mg/kg body weight

Isopropyl alcohol (67-63-0)	
LD50 oral rat	5840 mg/kg
LD50 oral	4396 mg/kg body weight
LD50 dermal rabbit	12800 mg/kg
LD50 dermal	12800 mg/kg body weight
LC50 Inhalation - Rat (Dust/Mist)	46600 mg/l
ATE CA (oral)	4396 mg/kg body weight
ATE CA (Dermal)	12800 mg/kg body weight
ATE CA (dust,mist)	46600 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
pH: 0.3

Serious eye damage/irritation : Causes serious eye damage.
pH: 0.3

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Isopropyl alcohol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Burns.

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

Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Phosphoric acid (7664-38-2)	
LC50 - Fish [1]	75.1 mg/l
EC50 - Crustacea [1]	> 100 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l waterflea
EC50 - Other aquatic organisms [2]	> 100 mg/l

Phosphoric acid (7664-38-2)	
EC50 72h - Algae [1]	> 100 mg/l
Partition coefficient n-octanol/water (Log Pow)	-0.77

Tridecanol, branched, ethoxylated (2-5 EO) (69011-36-5)	
LC50 - Fish [1]	> 1 mg/l
EC50 - Other aquatic organisms [1]	> 1 mg/l waterflea
EC50 - Other aquatic organisms [2]	> 1 mg/l
EC50 96h - Algae [1]	11.5 mg/l

Isopropyl alcohol (67-63-0)	
LC50 - Fish [1]	9640 mg/l
LC50 - Fish [2]	9640 mg/l
EC50 - Other aquatic organisms [1]	13299 mg/l waterflea
EC50 - Other aquatic organisms [2]	> 1000 mg/l
Partition coefficient n-octanol/water (Log Pow)	0.05

12.2. Persistence and degradability

HG scale away concentrate	
Persistence and degradability	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Phosphoric acid (7664-38-2)	
Partition coefficient n-octanol/water (Log Pow)	-0.77

Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water (Log Pow)	0.05

12.4. Mobility in soil

Phosphoric acid (7664-38-2)	
Partition coefficient n-octanol/water (Log Pow)	-0.77

Tridecanol, branched, ethoxylated (2-5 EO) (69011-36-5)	
Mobility in soil	111.3

Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water (Log Pow)	0.05

12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Ecology - waste materials : 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	Not applicable	1760	1760
14.2. Proper Shipping Name			
CORROSIVE LIQUID, N.O.S. (MIXTURE CONTAINS : Phosphoric acid)	Compounds, cleaning liquid (MIXTURE CONTAINS : Phosphoric acid)	CORROSIVE LIQUID, N.O.S. (MIXTURE CONTAINS : Phosphoric acid)	Corrosive liquid, n.o.s. (MIXTURE CONTAINS : Phosphoric acid)
Transport document description			
UN1760 CORROSIVE LIQUID, N.O.S. (MIXTURE CONTAINS : Phosphoric acid), 8, III	NA1760 Compounds, cleaning liquid (MIXTURE CONTAINS : Phosphoric acid), 8, III	UN 1760 CORROSIVE LIQUID, N.O.S. (MIXTURE CONTAINS : Phosphoric acid), 8, III	UN 1760 Corrosive liquid, n.o.s. (MIXTURE CONTAINS : Phosphoric acid), 8, III
14.3. Transport hazard class(es)			
8	8	8	8
			
14.4. Packing group			
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) : UN1760

TDG Special Provisions	:	16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards 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) of Part 3 (Documentation). 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) of Part 4 (Dangerous Goods Safety Marks). (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

DOT

UN-No.(DOT)	:	NA1760
DOT Special Provisions (49 CFR 172.102)	:	386 - Notwithstanding the provisions of §177.834(l) of this subchapter, cargo heaters may be used when weather conditions are such that the freezing of a wetted explosive material is likely. Shipments must be made by private, leased or contract carrier vehicles under exclusive use of the offeror. Cargo heaters must be reverse refrigeration (heat pump) units. Shipments made in accordance with this Special provision are excepted from the requirements of §173.60(b)(4) of this subchapter. 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). N37 - This material may be shipped in an integrally-lined fiber drum (1G) which meets the general packaging requirements of subpart B of part 173 of this subchapter, the requirements of part 178 of this subchapter at the packing group assigned for the material and to any other special provisions of column 7 of the 172.101 table. 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)	:	
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	
DOT Packaging Bulk (49 CFR 173.xxx)	:	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	
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, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG) : A
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

IATA

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 852
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
Special provision (IATA) : A3, A803
ERG code (IATA) : 8L

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

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

Phosphoric acid (7664-38-2)

Listed on the Canadian DSL (Domestic Substances List)

Tridecanol, branched, ethoxylated (2-5 EO) (69011-36-5)

Listed on the Canadian DSL (Domestic Substances List)

Isopropyl alcohol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

Phosphoric acid (7664-38-2)

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

Tridecanol, branched, ethoxylated (2-5 EO) (69011-36-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Isopropyl alcohol (67-63-0)
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 : 10-31-2021

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H-phrases:	
H225	Highly flammable liquid and vapor
H227	Combustible liquid
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H401	Toxic to aquatic life

Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level

Abbreviations and acronyms:	
N.O.S.	Not Otherwise Specified
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
ThOD	Theoretical oxygen demand (ThOD)
SDS	Safety Data Sheet

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.