UNICID

Safety Data Sheet

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

Issue date: 05/11/2020 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture

Product name : UNICID

1.2. Recommended use and restrictions on use

Recommended uses and restrictions : Water Treatment Chemical

1.3. Supplier

Distributor
Jet-Lube
930 Whitmore Drive
75087 Rockwall, Texas - USA
T 1.972.771.1000
Regulatory@whitmores.com - www.jetlube.com

Distributor
Jet-Lube of Canada LTD
Units 8 & 9, 1260 - 34 Avenue
T9E 1K7 Nisku, AB - Canada
T 1.780.463.7441
Regulatory@whitmores.com - www.jetlube.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency Call CHEMTREC 24hr/day 7days/week
Within USA and Canada: 1.800.424.9300
Outside USA and Canada: +1.703.527.3887
(collect calls accepted)

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation

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) : Warning

Hazard statements (GHS CA) : H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS CA) : P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear eye protection, protective gloves.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
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)
sulfamic acid	amidosulfonic acid / amidosulfuric acid / aminosulfonic acid / cinnasorb activator / imidosulfonic acid / sulfamic acid / sulfamic-acid- / sulfamidic acid / sulfaminic acid / sulphamic acid / sulphamidic acid	(CAS-No.) 5329-14-6	40 - 50	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
oxalic acid	aktisal / Al3-26463 / aquisal / BRN 0385686 / CCRIS 1454 / dicarboxylic acid / dicarboxylic acid C2 / ethanedioic-acid- / NSC 62774 / oxalic acid / oxalic acid, anhydrous / oxiric acid	(CAS-No.) 144-62-7	20 - 30	Acute Tox. 4 (Oral), H302 Skin Corr. 1, H314 Eye Dam. 1, H318
citric acid	1,2,3-propanetricarboxylic acid, 2-hydroxy- / 1,2,3-propanetricarboxylic acid, 2-hydroxy-, anhydrous / 2-hydroxy-1,2,3-propanetricarbolic acid / 2-hydroxy-1,2,3-propanetricarboxylic acid / 2-hydroxy-1,2,3-propanetricarboxylic acid, anhydrous / aciletten / anhydrous citric acid / beta-hydroxytricarballylic acid / beta-hydroxytricarballylic acid, anhydrous / beta-hydroxytricarboxylic acid / citretten / citric acid / citric acid anhydrous fine granular 16/40 / citric acid anhydrous granular / citric acid anhydrous granular 5N / citric acid anhydrous medium granular / citric acid anhydrous powder / citro / citroenzuur, anhydraat / E 330 / E330 / FEMA no 2306 / hydroxytricarballylic acid / MC-1, acidic membrane cleaner / NSC 30279	(CAS-No.) 77-92-9	15 - 20	Eye Irrit. 2A, H319

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.

First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Call a poison center/doctor/physician if you feel unwell.

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

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.

5.2. Unsuitable extinguishing media

No additional information available

5.3. Specific hazards arising from the hazardous product

Hazardous decomposition products in case of fire : Toxic fumes may be released.

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 : Mechanically recover the product.

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. Avoid contact with skin and eyes. Wear personal protective equipment.

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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

oxalic acid (144-62-7)	
Canada (Alberta) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 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 182/2019)
Canada (Quebec) - Occupational Exposure Limits	
VEMP (mg/m³)	1 mg/m³
PLAFOND (mg/m³)	2 mg/m³
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (New Brunswick) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Notations and remarks	URT, eye, & skin irr
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³

Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (Nova Scotia) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (Nunavut) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016
Canada (Northwest Territories) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-124-2018)
Canada (Ontario) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Notations and remarks	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH
Canada (Saskatchewan) - Occupational Exposure Limits	
OEL TWA (mg/m³)	1 mg/m³
OEL STEL (mg/m³)	2 mg/m³
Regulatory reference	The Occupational Health and Safety Regulations, 1996. Chapter O-1.1 Reg 1
USA - ACGIH - Occupational Exposure Limits	
Local name	Oxalic acid, anhydrous
ACGIH TWA (mg/m³)	1 mg/m³
ACGIH STEL (mg/m³)	2 mg/m³
Remark (ACGIH)	TLV® Basis: URT, eye, & skin irr
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Oxalic acid
OSHA PEL (TWA) (mg/m³)	1 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-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

Hand protection:

Protective gloves. Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Pellet.
Color	:	Off-white
Odor	:	Sweet Mild odour
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	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
Vapor pressure at 50 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Explosion limits	:	Not applicable

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	:	None under recommended storage and handling conditions (see section 7).
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. Information on toxicological effects

Acute toxicity (oral)	:	Harmful if swallowed.
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

ATE CA (oral)	982.398 mg/kg body weight

sulfamic acid (5329-14-6)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 oral	2065 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE CA (oral)	2065 mg/kg body weight

oxalic acid (144-62-7)	
LD50 oral rat	375 mg/kg body weight (Rat, Female, Experimental value, Oral)
LD50 oral	375 mg/kg
LD50 dermal rabbit	20000 mg/kg body weight Animal: rabbit, Guideline: other:no data
ATE CA (oral)	375 mg/kg body weight
ATE CA (Dermal)	20000 mg/kg body weight

citric acid (77-92-9)	
LD50 oral	5400 mg/kg body weight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 4500 - 6400
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE CA (oral)	5400 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

sulfamic acid (5329-14-6)	
NOAEL (oral,rat,90 days)	≥ 250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

oxalic acid (144-62-7)	
LOAEL (oral,rat,90 days)	≈ 20000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral,rat,90 days)	≥ 10000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

citric acid (77-92-9)	
LOAEL (oral,rat,90 days)	8000 mg/kg body weight Animal: rat
NOAEL (oral,rat,90 days)	4000 mg/kg body weight Animal: rat

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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

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

sulfamic acid (5329-14-6)	
LC50 fish 1	70.3 mg/l
EC50 Daphnia 1	71.6 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	48 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
Partition coefficient n-octanol/water (Log Pow)	0.1 (Experimental value, EPA OPPTS 830.7550: Partition Coefficient (n-octanol/water), Shake Flask Method, 20 °C)

oxalic acid (144-62-7)	
LC50 fish 1	27 mg/l
EC50 Daphnia 1	15 mg/l

oxalic acid (144-62-7)	
ErC50 (algae)	20.58 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic crustacea	9.3 mg/l
NOEC chronic algae	9.4 mg/l
Partition coefficient n-octanol/water (Log Pow)	-1.7 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)
Partition coefficient n-octanol/water (Log Koc)	0.8 (log Koc, Experimental value)

citric acid (77-92-9)	
LC50 fish 1	440 – 760 mg/l (Equivalent or similar to OECD 203, 48 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
BCF other aquatic organisms 1	3.2 l/kg (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.55 (Experimental value)

12.2. Persistence and degradability

sulfamic acid (5329-14-6)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

oxalic acid (144-62-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions.
Biochemical oxygen demand (BOD)	0.16 g O_2/g substance
Chemical oxygen demand (COD)	0.18 g O_2/g substance
ThOD	0.18 g O_2/g substance

citric acid (77-92-9)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.42 g O_2/g substance
Chemical oxygen demand (COD)	0.728 g O_2/g substance
ThOD	0.686 g O_2/g substance
BOD (% of ThOD)	0.89 (20 day(s), Literature study)

12.3. Bioaccumulative potential

sulfamic acid (5329-14-6)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	0.1 (Experimental value, EPA OPPTS 830.7550: Partition Coefficient (n-octanol/water), Shake Flask Method, 20 °C)

oxalic acid (144-62-7)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-1.7 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)
Partition coefficient n-octanol/water (Log Koc)	0.8 (log Koc, Experimental value)

citric acid (77-92-9)	
Bioaccumulative potential	Not bioaccumulative.
BCF other aquatic organisms 1	3.2 l/kg (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.55 (Experimental value)

12.4. Mobility in soil

sulfamic acid (5329-14-6)	
Ecology - soil	No (test)data on mobility of the substance available. Toxic to flora.
Partition coefficient n-octanol/water (Log Pow)	0.1 (Experimental value, EPA OPPTS 830.7550: Partition Coefficient (n-octanol/water), Shake Flask Method, 20 °C)

oxalic acid (144-62-7)	
Surface tension	70.1 mN/m (25 °C, 15 mg/l)
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (Log Koc)	0.8 (log Koc, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	-1.7 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)

citric acid (77-92-9)	
Ecology - soil	No (test)data on mobility of the substance available.

citric acid (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.8 – -1.55 (Experimental value)

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.

SECTION 14: Transport information

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

Not regulated for transport

14.2. Transport information/DOT

Department of Transport

Not regulated for transport

14.3. Air and sea transport

IMDG

Not regulated for transport

IATA

Not regulated for transport

SECTION 15: Regulatory information

15.1. National regulations

sulfamic acid (5329-14-6)
Listed on the Canadian DSL (Domestic Substances List)

oxalic acid (144-62-7)
Listed on the Canadian DSL (Domestic Substances List)

citric acid (77-92-9)
Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

sulfamic acid (5329-14-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

oxalic acid (144-62-7)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

citric acid (77-92-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

Issue date : 05/11/2020

Full text of H-phrases:

H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation

SDS Canada (GHS)

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.