

Revive

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Issue date: 2024-08-13

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Revive

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Instrument Rust and Stain Remover

1.3. Supplier

Manufacturer

Germiphene Corporation
1379 Colborne Street East
Brantford, N3T 5M1 - Canada
T 519-759-7100 - F 519-759-1625

1.4. Emergency telephone number

Emergency number : CANUTEC 613-996-6666

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Flam. Liq. 3
Skin Corr. 1C
Eye Dam. 1

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

Flammable liquid and vapour.
Causes severe skin burns and eye damage.

Precautionary statements (GHS) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use explosion-proof electrical, ventilating, lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust, fume, spray, vapours, mist, gas.
Wash hands, forearms and face thoroughly after handling.
Wear eye protection, face protection, protective clothing, protective gloves.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
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

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and easy to do. Continue rinsing.
Immediately call a poison center or doctor.
Store in a well-ventilated place. Keep cool.
Store locked up.
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 which do not result in classification

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
L-Lactic acid	L-Lactic acid Propanoic acid, 2-hydroxy-, (S)- (S)-2-Hydroxypropanoic acid (S)-Lactic acid (S)-(+)-Lactic acid L-(+)-Lactic acid (+)-Lactic acid Lactic acid, L- Propanoic acid, 2-hydroxy-, (2S)- Sarcosine (S)-(+)-2-Hydroxypropanoic acid (+)-2-Hydroxypropanoic acid L-2-Hydroxypropanoic acid L-(+)-lactic acid Lactic acid, l-	CAS-No.: 79-33-4	10 – 30
Isopropyl alcohol	Isopropyl alcohol 2-Hydroxypropane 2-Propyl alcohol 2-Propanol Isopropanol Propan-2-ol ISOPROPYL ALCOHOL Propanol, 2- Isopropyl alcohol	CAS-No.: 67-63-0	3 - 7

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

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First-aid measures after skin contact	: If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

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

Symptoms/effects after inhalation	: May cause burns to the respiratory tract. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes severe skin burns. Symptoms may include redness, pain, blisters.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Carbon dioxide (CO ₂), dry chemical powder, foam. Water spray.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: Flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon. May release corrosive or irritating fumes.
Explosion hazard	: May form flammable/explosive vapour-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Move containers away from the fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.
Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.
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6.1.1. For non-emergency personnel

Emergency procedures	: Do not touch or walk on the spilled product.
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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

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6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so. Remove all sources of ignition. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. 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

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not swallow. Do not breathe dust/fume/gas/mist/vapours/spray. Handle and open container with care. When using do not eat, drink or smoke. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Wear appropriate PPE (see Section 8).
- Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Containers which are opened should be properly resealed and kept upright to prevent leakage.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Revive	
No additional information available	
L-Lactic acid (79-33-4)	
No additional information available	
Isopropyl alcohol (67-63-0)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Propanol
ACGIH OEL TWA	200 ppm
ACGIH OEL STEL	400 ppm
Remark (ACGIH)	TLV® Basis: Eye & URT irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
ACGIH chemical category	Not Classifiable as a Human Carcinogen
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	2-PROPANOL

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Isopropyl alcohol (67-63-0)	
BEI	40 mg/l Parameter: Acetone - Medium: urine - Sampling time: end of shift at end of workweek (background, nonspecific)
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Isopropyl alcohol
OSHA PEL TWA	980 mg/m ³
	400 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH	2000 ppm (10% LEL)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	980 mg/m ³
	400 ppm
NIOSH REL STEL	1225 mg/m ³
	500 ppm

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.
Eye protection:
Wear eye/face protection
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Translucent liquid.

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Colour	: Yellowish
Odour	: Specific
Odour threshold	: No data available
pH	: 4 – 6
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 34 °C / 93.2 °F ASTM D56
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: Flammable liquid and vapour.
Vapour pressure	: No data available
Relative vapour density at 20°C / 68 °F	: No data available
Relative density	: 1.272
Solubility	: Infinite in water.
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: Viscous
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sources of ignition. Direct sunlight. Incompatible materials.

10.5. Incompatible materials

Acids. Organic materials. Strong oxidizers. Sodium hydroxide. Nitromethane.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases. May release corrosive or irritating fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.

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

L-Lactic acid (79-33-4)	
LD50 oral rat	3730 mg/kg (Source: IUCLID)
LD50 dermal rabbit	> 2000 mg/kg (Source: NICNAS)
LC50 inhalation rat	> 7.94 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CA (oral)	3730 mg/kg bodyweight

Isopropyl alcohol (67-63-0)	
LD50 oral rat	5840 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	4059 mg/kg (Source: JAPAN_GHS)
LC50 inhalation rat	> 10000 ppm (Exposure time: 6 h Source: ECHA_API)
ATE CA (oral)	5840 mg/kg bodyweight
ATE CA (Dermal)	4059 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns.
pH: 4 – 6
Serious eye damage/irritation : Causes serious eye damage.
pH: 4 – 6
Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

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.

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Viscosity, kinematic	Viscous

Symptoms/effects after inhalation : May cause burns to the respiratory tract. May cause respiratory irritation.
Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.
Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

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L-Lactic acid (79-33-4)	
LC50 - Fish [1]	320 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static] Source: IUCLID)
EC50 - Crustacea [1]	240 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	100 – 180 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [2]	180 – 320 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Isopropyl alcohol (67-63-0)	
LC50 - Fish [1]	10000 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	9640 mg/l Test organisms (species): Pimephales promelas

12.2. Persistence and degradability

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Persistence and degradability	Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

L-Lactic acid (79-33-4)	
Partition coefficient n-octanol/water	-0.54 (at 25 °C)

Isopropyl alcohol (67-63-0)	
Partition coefficient n-octanol/water	0.05 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapours are flammable. Recycle empty containers where allowed.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

UN-No.(DOT) : UN2924
UN-No. (TDG) : UN2924

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UN-No. (IMDG) : 2924
UN-No. (IATA) : 2924

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Flammable liquids, corrosive, n.o.s. (L-Lactic acid; Isopropyl alcohol)
Proper Shipping Name (TDG) : FLAMMABLE LIQUID, CORROSIVE, N.O.S. (L-Lactic acid; Isopropyl alcohol)
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, CORROSIVE, N.O.S. (L-Lactic acid; Isopropyl alcohol)
Proper Shipping Name (IATA) : Flammable liquid, corrosive, n.o.s. (L-Lactic acid; Isopropyl alcohol)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3 (8)
Hazard labels (DOT) : 3, 8



TDG

Transport hazard class(es) (TDG) : 3 (8)
Hazard labels (TDG) : 3, 8



IMDG

Transport hazard class(es) (IMDG) : 3 (8)
Danger labels (IMDG) : 3, 8



IATA

Transport hazard class(es) (IATA) : 3 (8)
Danger labels (IATA) : 3, 8



14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

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 Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories except for:

Octanoic acid, pentadecafluoro-

CAS-No. 335-67-1

15.2. International regulations

No additional information available

15.3. US State regulations

⚠ WARNING: This product can expose you to Perfluorooctanoic acid, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Revision date : 08/13/2024

Other information : None.

Prepared by : Nexreg Compliance Inc.

www.Nexreg.com



Full text of hazard classes and H-statements

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Skin Corr. 1C	Skin corrosion/irritation, Category 1C

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2023

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