Hifo-Clean

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022
Issue date: 2025-11-24 Revision date: 2025-11-24 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : Hifo-Clean
Product code : LB-HIFO
Part No: LS-HIFO series

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 : Cleaning agent

1.4. Supplier's details

Manufacturer
Celeste Industries Corporation
8007 Industrial Park Road
Easton, Maryland 21601 USA
T 1-410-822-5775
info@celestecorp.com - www.celestecorp.com

Distributor
ITW Permatex Canada
2360 Bristol Circle, Ste 101
Oakville, ON, L6H 6M5
Canada
T 1-800-241-8334

1.5. Emergency phone number

Emergency number : For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident call CHEMTREC (24 hours) within USA and CANADA: 1-800-424-9300
Outside USA and Canada (collect call accepted): 1-703-527-3883

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

GHS classification

Serious eye irritation, Category 2A

2.2. Label elements

GHS labelling

Hazard pictograms (GHS) :

Signal word (GHS) : Warning
Hazard statements (GHS) : Causes serious eye irritation
Precautionary statements (GHS) : Wash hands, forearms and face thoroughly after handling.
Wear protective gloves, protective clothing, face protection, eye protection.
IF IN EYES: 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 or attention.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. 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	Conc. (% w/w)
Dipropylene glycol monomethyl ether	Dipropylene glycol monomethyl ether Dipropylene glycol monomethyl ether / (2-Methoxymethylethoxy)propanol / Propanol, (2-methoxymethylethoxy)- / Dipropylene glycol methyl ether / DPGME / PPG-2 METHYL ETHER / Methoxypropoxypropanol / (2-Methoxymethylethoxy)propanol, mixed isomers / Monomethyl ether of dipropyleneglycol / 1(or 2)-[2-Methoxy(methyl)ethoxy]propanol / PPG-2 methyl ether / (2-Methoxymethylethoxy) propanol	CAS-No.: 34590-94-8	0.5 – 1.5
Phosphonic acid, octyl-	Phosphonic acid, octyl- Octylphosphonic acid / n-Octylphosphonic acid / Phosphonic acid, P-octyl- / n-Octylphosphorous acid	CAS-No.: 4724-48-5	0.5 – 1.5
Methyl 3-oxo-2-pentylcyclopentaneacetate	Methyl 3-oxo-2-pentylcyclopentaneacetate Cyclopentene-1-acetate, 3-oxo-2-pentyl-, methyl / Methyl 3-oxo-2-pentylcyclopentaneacetate / Methyl dihydrojasmonate / Methyl 3-oxo-2-pentyl-1-cyclopentylacetate / 3-Oxo-2-pentylcyclopentaneacetic acid methyl ester / Methyl(2-pentyl-3-oxocyclopentyl)acetate / METHYLDIHYDROJASMONATE / methyl dihydrojasmonate (synthetic) / Methyl 2-(3-oxo-2-pentylcyclopentyl)acetate	CAS-No.: 24851-98-7	0.1 < 1

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

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.

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. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

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

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

Other medical advice or treatment : 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 : Water fog. dry chemical extinguisher. Alcohol resistant foam. Carbon dioxide (CO2).
Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Irritating vapours. Oxides of phosphorus.

5.3. Special protective equipment and precautions for fire-fighters

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.

For non-emergency personnel

No additional information available

For emergency responders

Environmental precautions : Prevent entry to sewers and public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Stop leak if safe to do so. 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.

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 : Avoid contact with eyes, skin and clothing. Avoid breathing dust, fume, gas, mist, spray, vapours. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.

Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Dipropylene glycol monomethyl ether (34590-94-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Dipropylene glycol methyl ether (DPGME)
ACGIH® TLV® TWA	50 ppm (Dipropylene glycol methyl ether)
Remark (ACGIH®)	TLV® Basis: Liver & CNS eff
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	
Local name	Dipropylene glycol methyl ether
OSHA PEL TWA	600 mg/m³
OSHA PEL TWA	100 ppm
Limit value category (OSHA)	prevent or reduce skin absorption
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH	600 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	600 mg/m³
NIOSH REL TWA	100 ppm
NIOSH REL STEL	900 mg/m³
NIOSH REL STEL	150 ppm
US-NIOSH chemical category	Potential for dermal absorption

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, such as personal protective equipment

Hand protection:
Wear suitable gloves. 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. Basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	Pleasant; Mild odour
Odour threshold	:	No data available
pH	:	7 – 8
Melting point	:	0 °C / 32 ° F
Freezing point	:	No data available
Boiling point	:	100 °C / 212 °F
Flash point	:	No data available
Flammability (solid, gas)	:	Not flammable.
Vapour pressure	:	No data available
Relative vapour density at 20°C/ 68 °F	:	No data available
Relative density	:	0.95 – 1.05 Specific gravity density
Solubility	:	No data available
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Explosive limits	:	No data available
Particle characteristics	:	No data available

Dipropylene glycol monomethyl ether	
Boiling point	189.6 °C (at 760 mmHg)
Flash point	75 °C (closed cup)
Auto-ignition temperature	270 °C
Particle characteristics	No data available

Phosphonic acid, octyl-	
Boiling point	> 450 °C (at 997 hPa)
Vapour pressure	0 Pa (at 25 °C)

Phosphonic acid, octyl-	
Particle characteristics	No data available

Methyl 3-oxo-2-pentylcyclopentaneacetate	
Boiling point	302.2 °C (at 1013 hPa)
Flash point	150 °C (closed cup)
Vapour pressure	≈ 0.002104 hPa Temp.: 25 °C
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

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Irritating vapours. Oxides of phosphorus.

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.

Dipropylene glycol monomethyl ether (34590-94-8)	
LD50 oral rat	5.35 g/kg (Source: NLM_HSDB)
LD50 dermal rat	> 19020 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	9510 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Phosphonic acid, octyl- (4724-48-5)	
LD50 oral rat	1890 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1650 - 2340
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)

Methyl 3-oxo-2-pentylcyclopentaneacetate (24851-98-7)	
LD50 oral rat	> 5 g/kg (Source: NLM_CIP)
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Guideline: other:
LC50 inhalation rat	> 4.93 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))

Skin corrosion/irritation : Not classified.

Phosphonic acid, octyl- (4724-48-5)	
pH	1 Concentration: 5 other:

Serious eye damage/irritation : Causes serious eye irritation.

Phosphonic acid, octyl- (4724-48-5)	
pH	1 Concentration: 5 other:

Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.
Reproductive toxicity : Not classified.
STOT-single exposure : Not classified.
STOT-repeated exposure : Not classified.

Dipropylene glycol monomethyl ether (34590-94-8)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: other:KANPOGYO No.700, YAKUHATSU No. 1039.61, and KIKYKU No. 1014.
NOAEL (dermal, rat/rabbit, 90 days)	2850 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Phosphonic acid, octyl- (4724-48-5)	
LOAEL (oral, rat, 90 days)	60 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	12 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Methyl 3-oxo-2-pentylcyclopentaneacetate (24851-98-7)	
NOAEL (oral, rat, 90 days)	> 100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

Aspiration hazard : Not classified.

Hifo-Clean	
Viscosity, kinematic	No data available

Dipropylene glycol monomethyl ether (34590-94-8)	
Viscosity, kinematic	No data available

Phosphonic acid, octyl- (4724-48-5)	
Viscosity, kinematic	No data available

Methyl 3-oxo-2-pentylcyclopentaneacetate (24851-98-7)	
Viscosity, kinematic	10.65 mm²/s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm²/s)'

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

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.
Hazardous to the aquatic environment, short–term (acute) : Not classified.
Hazardous to the aquatic environment, long–term (chronic) : Not classified.

Dipropylene glycol monomethyl ether (34590-94-8)	
LC50 - Fish [1]	> 10000 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	1919 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Other aquatic organisms [1]	1930 mg/l Test organisms (species): other aquatic crustacea:Acartia tonsa
EC50 72h - Algae [1]	> 969 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	> 969 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	0.5 mg/l Test organisms (species): Daphnia magna Duration: '22 d'
NOEC (chronic)	≥ 0.5 mg/l Test organisms (species): Daphnia magna Duration: '22 d'

Phosphonic acid, octyl- (4724-48-5)	
LC50 - Fish [1]	> 40 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static] Source: ECHA)
EC50 72h - Algae [1]	40 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	23 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

Methyl 3-oxo-2-pentylcyclopentaneacetate (24851-98-7)	
LC50 - Fish [1]	19 mg/l Test organisms (species): Oryzias latipes
EC50 - Crustacea [1]	8.25 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	18.2 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	45.9 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

Hifo-Clean	
Persistence and degradability	Not established.

Dipropylene glycol monomethyl ether (34590-94-8)	
Persistence and degradability	Rapidly degradable

Phosphonic acid, octyl- (4724-48-5)	
Persistence and degradability	Rapidly degradable

Methyl 3-oxo-2-pentylcyclopentaneacetate (24851-98-7)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Hifo-Clean	
Bioaccumulative potential	Not established.

Dipropylene glycol monomethyl ether (34590-94-8)	
Partition coefficient n-octanol/water	0.35 (at 25 °C (at pH 7)

Phosphonic acid, octyl- (4724-48-5)	
Partition coefficient n-octanol/water	2.7 (at 23 °C)

Methyl 3-oxo-2-pentylcyclopentaneacetate (24851-98-7)	
Partition coefficient n-octanol/water	2.93 (at 22 °C (at pH >=6-<=6.7)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified.
Fluorinated greenhouse gases : No
Other information : No other effects known.

SECTION 13 Disposal considerations

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.

SECTION 14 Transport information

In accordance with DOT / TDG

DOT	TDG
14.1. UN number	
Not regulated	Not regulated
14.2. Proper Shipping Name	
Not regulated	Not regulated

DOT	TDG
14.3. Transport hazard class(es)	
Not regulated	Not regulated
14.4. Packing group	
Not regulated	Not regulated
14.5. Environmental hazards	
Not regulated	Not regulated
No supplementary information available.	

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT
Not regulated

TDG
Not regulated

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.

15.2. International regulations

No additional information available

15.3. State regulations

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

SECTION 16 Other Information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024 and the Hazardous Products Regulations (HPR) WHMIS 2022

Revision date : 2025-11-24
Issue date : 2025-11-24
Other information : None.
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SDS HazCom 2024 - WHMIS 2022 (Nexreg) 2025

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