

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Glyvak
UFI : WS7H-11RC-300Y-G10D
Product code : Formula : LB-GLYVAK/5
Part No: ESP-GVAK Series

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Industrial use
Use of the substance/mixture : Cleaning agent

1.2.2. Uses advised against

Restrictions on use : None known

1.3. Details of the supplier of the safety data sheet**Manufacturer**

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

Distributor

Wynn's Belgium BV
Industriepark-West 46
B-9100 Sint-Niklaas
Belgium
T 410-822-5775

1.4. Emergency telephone 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: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin Corr. 1C H314
Eye Dam. 1 H318
Contains Dibutyl thiourea. May produce an allergic reaction. EUH208
Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Contains : L-Lactic acid; Benzenesulfonic acid, C10-16-alkyl derivatives; Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives
Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.
P305+P351+P338+P310 - 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.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
: EUH208 - Contains Dibutyl thiourea. May produce an allergic reaction.
: 2.99% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))

EUH-statements

Unknown acute toxicity (CLP) - SDS

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Formic acid substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit (Note B)	CAS-No.: 64-18-6 EC-No.: 200-579-1 EC Index-No.: 607-001-00-0	1 – 5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=1100 mg/kg bodyweight) Acute Tox. 3 (Inhalation:vapour), H331 (ATE=7.85 mg/l/4h) Skin Corr. 1A, H314 Eye Dam. 1, H318
L-Lactic acid	CAS-No.: 79-33-4 EC-No.: 201-196-2 EC Index-No.: 607-743-00-5	1 – 5	Skin Corr. 1C, H314 Eye Dam. 1, H318 EUH071
Benzenesulfonic acid, C10-16-alkyl derivatives	CAS-No.: 68584-22-5 EC-No.: 271-528-9	1 – 5	Acute Tox. 4 (Oral), H302 (ATE=775 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=2000 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318
Dodecylbenzenesulfonic acid (Alternate Chemical for CAS-No.: 68584-22-5)	CAS-No.: 27176-87-0 EC-No.: 248-289-4	1 – 5	Acute Tox. 4 (Oral), H302 (ATE=1260 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=631 mg/kg bodyweight) Skin Corr. 1, H314 Eye Dam. 1, H318
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (Alternate Chemical for CAS-No.: 68584-22-5)	CAS-No.: 85536-14-7 EC-No.: 287-494-3	1 – 5	Acute Tox. 4 (Oral), H302 (ATE=1219 mg/kg bodyweight) Skin Corr. 1C, H314 Eye Dam. 1, H318 Aquatic Chronic 3, H412

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dibutyl thiourea	CAS-No.: 109-46-6 EC-No.: 203-674-6	0.01 – 0.05	Acute Tox. 4 (Dermal), H312 Skin Sens. 1A, H317 STOT RE 1, H372 Aquatic Chronic 2, H411

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Formic acid	CAS-No.: 64-18-6 EC-No.: 200-579-1 EC Index-No.: 607-001-00-0	(2 ≤ C < 10) Skin Irrit. 2, H315 (2 ≤ C < 10) Eye Irrit. 2, H319 (10 ≤ C < 90) Skin Corr. 1B, H314 (90 ≤ C < 100) Skin Corr. 1A, H314
L-Lactic acid	CAS-No.: 79-33-4 EC-No.: 201-196-2 EC Index-No.: 607-743-00-5	(1 ≤ C < 3) Eye Irrit. 2, H319 (3 ≤ C < 100) Eye Dam. 1, H318 (10 ≤ C < 100) Skin Irrit. 2, H315

Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of 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. Immediately call a POISON CENTER/doctor.
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/doctor.
First-aid measures after ingestion	: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: Causes burns to the respiratory system.
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. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

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5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

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.

6.1.1. For non-emergency personnel

Emergency procedures : Do not touch or walk on the spilled product.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material 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.

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

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Provide adequate ventilation.

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

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in original container. Store locked up.

7.3. Specific end use(s)

Cleaning agent.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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Formic acid (64-18-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	9 mg/m ³
IOEL TWA	5 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	9.5 mg/m ³
OEL TWA	5 ppm
OEL STEL	19 mg/m ³
OEL STEL	10 ppm

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Consult the relevant monitoring standards for the region.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety eyewear complying with an approved standard such as the European Standard EN166 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Chemical resistant gloves (according to European standard NF ISO 374-1 or equivalent)

8.2.2.3. Respiratory protection

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.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

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

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Amber. Light tan.
Odour	: None.
Odour threshold	: Not available
Melting point	: 0 °C /32 °F
Freezing point	: Not available
Boiling point	: 100 °C / 212 °F
Flammability	: Not flammable
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidizing.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Refer to component values below
Auto-ignition temperature	: Refer to component values below
Decomposition temperature	: Not available
pH	: < 3
Viscosity, kinematic	: Not available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Refer to component values below
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 0.95 – 1.05
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

Dibutyl thiourea (109-46-6)

Boiling point	(>171.05 - <208.33 °C)
Flash point	103.6 °C Atm. press.: 1013 hPa
Vapour pressure	0.00256 mm Hg Temp.: 25 °C

Formic acid (64-18-6)

Boiling point	100.23 °C (at 1013.25 hPa)
Flash point	46.5 °C (closed cup)
Auto-ignition temperature	539 °C
Vapour pressure	170.7 hPa (at 50 °C)

L-Lactic acid (79-33-4)

Boiling point	> 100 °C
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Dodecylbenzenesulfonic acid (27176-87-0)

Boiling point	204.5 °C
Flash point	149 °C (closed cup)
Auto-ignition temperature	> 300 °C
Vapour pressure	0 mm Hg Temp.: 25 °C Remarks on result: 'other:'

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)

Boiling point	189.05 °C Atm. press.: 102,1 kPa
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Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)

Flash point	196.9 °C (closed cup)
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9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

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 bases. Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Irritating fumes.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Dibutyl thiourea (109-46-6)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)
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Formic acid (64-18-6)

LD50 oral rat	1100 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	7.85 mg/l/4h

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)

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Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
LD50 oral rat	775 mg/kg (Source: CHEMVIEW)
LD50 dermal rabbit	2000 mg/kg (Source: CHEMVIEW)
LC50 inhalation rat	> 1.9 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
Dodecylbenzenesulfonic acid (27176-87-0)	
LD50 oral rat	1260 mg/kg (Source: JAPAN_GHS)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
LD50 dermal rabbit	631 – 1000 mg/kg (Source: CHEMVIEW)
LC50 inhalation rat	0.31 mg/l air Animal: rat, Animal sex: male, Remarks on results: other:
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
LD50 oral rat	1219 mg/kg (Source: IUCLID)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
Unknown acute toxicity (CLP) - SDS	: 0.25% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 0.25% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 2.99% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Vapours))
Skin corrosion/irritation	: Causes severe skin burns. pH: < 3 Based on Corrositex data (OECD TG435)
Dodecylbenzenesulfonic acid (27176-87-0)	
pH	< 1 Temp.: 25 °C Remarks on result: 'other:'
Serious eye damage/irritation	: Causes serious eye damage. pH: < 3 Based on Corrositex data (OECD TG435)
Dodecylbenzenesulfonic acid (27176-87-0)	
pH	< 1 Temp.: 25 °C Remarks on result: 'other:'
Respiratory or skin sensitisation	: 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.)
Formic acid (64-18-6)	
NOAEL (chronic, oral, animal/male, 2 years)	400 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:Effect type: toxicity (migrated information)
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.)
Dibutyl thiourea (109-46-6)	
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Formic acid (64-18-6)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.244 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

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Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
NOAEL (oral, rat, 90 days)	500 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents)
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Dodecylbenzenesulfonic acid (27176-87-0)	
LOAEL (oral, rat, 90 days)	200 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
LOAEL (dermal, rat/rabbit, 90 days)	286 mg/kg bodyweight Animal: rat, Animal sex: male
NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (dermal, rat/rabbit, 90 days)	< 286 mg/kg bodyweight Animal: rat, Animal sex: male

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

Dodecylbenzenesulfonic acid (27176-87-0)	
Viscosity, kinematic	905.66 mm ² /s

Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
Viscosity, kinematic	1618.868 mm ² /s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 %

11.2.2. Other information

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.
Unknown hazards to the aquatic environment (CLP) : Contains 0.51 % of components with unknown hazards to the aquatic environment
Hazardous to the aquatic environment, short-term (acute) : Not classified. (Based on available data, the classification criteria are not met.)
Hazardous to the aquatic environment, long-term (chronic) : Not classified. (Based on available data, the classification criteria are not met.).

Dibutyl thiourea (109-46-6)	
LC50 - Fish [1]	17.8 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	3.8 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	6.9 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

Formic acid (64-18-6)	
LC50 - Fish [1]	130 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	120 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	138 – 165.6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

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Formic acid (64-18-6)	
EC50 72h - Algae [1]	26.9 mg/l (Species: <i>Desmodesmus subspicatus</i>)
EC50 96h - Algae [1]	25 mg/l (Species: <i>Desmodesmus subspicatus</i>)
LOEC (chronic)	> 100 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC (chronic)	≥ 100 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
L-Lactic acid (79-33-4)	
LC50 - Fish [1]	320 mg/l (Exposure time: 96 h - Species: <i>Brachydanio rerio</i> [semi-static] Source: IUCLID)
LC50 - Fish [2]	100 – 180 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static] Source: EPA)
EC50 - Crustacea [1]	240 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 - Crustacea [2]	180 – 320 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i> [Static])
Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)	
LC50 - Fish [1]	3 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [static] Source: IUCLID)
EC50 - Crustacea [1]	2.9 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 72h - Algae [1]	> 1000 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 96h - Algae [1]	> 1000 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
Dodecylbenzenesulfonic acid (27176-87-0)	
LC50 - Fish [1]	10.8 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [static])
LC50 - Fish [2]	3.5 – 10 mg/l (Exposure time: 96 h - Species: <i>Brachydanio rerio</i> [static])
EC50 - Crustacea [1]	5.88 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 72h - Algae [1]	65.4 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 72h - Algae [2]	21 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 96h - Algae [1]	29 mg/l (Species: <i>Pseudokirchneriella subcapitata</i>)
Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)	
LC50 - Fish [1]	5.6 mg/l (Exposure time: 96 h - Species: <i>Cyprinus carpio</i> [flow-through] Source: IUCLID)
EC50 - Crustacea [1]	5.2 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 72h - Algae [1]	36 mg/l (Species: <i>Desmodesmus subspicatus</i>)
NOEC (chronic)	1.18 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'

12.2. Persistence and degradability

Glyvak	
Persistence and degradability	Not established.
Dibutyl thiourea (109-46-6)	
Persistence and degradability	Rapidly degradable
Formic acid (64-18-6)	
Persistence and degradability	Rapidly degradable
L-Lactic acid (79-33-4)	
Persistence and degradability	Rapidly degradable

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Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)

Persistence and degradability	Rapidly degradable
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Dodecylbenzenesulfonic acid (27176-87-0)

Persistence and degradability	Rapidly degradable
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Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)

Persistence and degradability	Rapidly degradable
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12.3. Bioaccumulative potential

Glyvak

Bioaccumulative potential	Not established.
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Dibutyl thiourea (109-46-6)

Partition coefficient n-octanol/water	2.75 (at pH 12)
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Formic acid (64-18-6)

BCF - Fish [1]	(0.22 dimensionless)
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Partition coefficient n-octanol/water	-1.9 (at 23 °C (at pH 5))
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L-Lactic acid (79-33-4)

Partition coefficient n-octanol/water	-0.54 (at 25 °C)
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Benzenesulfonic acid, C10-16-alkyl derivatives (68584-22-5)

Partition coefficient n-octanol/water	2 (at 23 °C)
---------------------------------------	--------------

Dodecylbenzenesulfonic acid (27176-87-0)

BCF - Fish [1]	(119 L/kg (whole body w.w.))
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Benzenesulfonic acid, 4-C10-13-sec-alkyl derivatives (85536-14-7)

Partition coefficient n-octanol/water	2.2 (at 23 °C (at pH 3.7))
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Glyvak

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 %.

12.7. Other adverse effects

Additional information : No other effects known

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SECTION 13: Disposal considerations

13.1. Waste treatment 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.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : UN 1760
UN-No. (IMDG) : UN 1760
UN-No. (IATA) : UN 1760

14.2. UN proper shipping name

Proper Shipping Name (ADR) : CORROSIVE LIQUID, N.O.S. (L-Lactic acid, Formic acid)
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, N.O.S. (L-Lactic acid, Formic acid)
Proper Shipping Name (IATA) : Corrosive liquid, n.o.s. (L-Lactic acid, Formic acid)

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8
Danger labels (ADR) : 8



IMDG

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



IATA

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



14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available.

14.6. Special precautions for user

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

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Overland transport

Orange plates

:

80
1760

Transport by sea

No data available

Air transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no REACH candidate substance.

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)
Please see https://home-affairs.ec.europa.eu/policies/internal-security/counter-terrorism-and-radicalisation/protection/legislation-chemicals-used-home-made-explosives_en

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Belgium

Belgian National Regulations : Not determined.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

None.

Abbreviations and acronyms:

CLP Abbreviations:
°C – Degrees Celsius
°F – Degrees Fahrenheit
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.
ASTM: American Society for Testing and Materials
ACGIH – American Conference of Governmental Industrial Hygienists
ATE – Acute Toxicity Estimate
BCF – Bioconcentration Factor
BEI – Biological Exposure Index
CAS – Chemical Abstracts Service
CLP – Regulation (EC) No 1272/2008 on the Classification, Labeling and Packaging of substances and mixtures.
CMR – Carcinogen, Mutagen, Reproductive toxin
cP – centipoise (unit of dynamic viscosity)
cSt – centistokes (unit of kinematic viscosity)
DNEL – Derived No-effect Level
DMEL – Derived Minimal Effect Level
EC50 – Half maximal effective concentration
ECHA – European Chemicals Agency
EC-No. – European Community number
EU – European Union
GHS – Globally Harmonized System of Classification and Labelling of Chemicals
h – Hours
IATA – International Air Transport Association
IC50 – Inhibition concentration
IDLH – Immediately Dangerous to Life or Health
IMDG – International Maritime Dangerous Goods
IOELV – Indicative Occupational Exposure Limit Value
KIFS – Swedish Chemicals Agency's (KemI's) Code of Statutes
kPa – kilopascal
Koc – Adsorption Coefficient
Kow – Octanol-Water Partition Coefficient
LC50 – Median Lethal Concentration
LD50 – Median Lethal Dose
LOAEL – Lowest Observed Adverse Effect level
mg/l – Milligram per liter
mg/kg – Milligram per kilogram
mg/m³ – Milligram per cubic meter
Min – Minutes
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NO(A)EL – No Observed (Adverse) Effect Level
N.O.S. – Not Otherwise Specified
OEL – Occupational Exposure Limit
PBT - Persistent, Bioaccumulative and Toxic
PCN – Poison Centre Notification
PNEC – Predicted No Effect Concentration
ppm – Parts per million
PVC – Polyvinyl chloride
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID – European Agreement concerning the International Carriage of Dangerous Goods by Rail
SDS – Safety Data Sheet
STEL – Short Term Exposure Limit
STOT – Specific Target Organ Toxicity
SVHC – Substance of Very High Concern (CMR, vPvB, PBT)
TDI – Tolerable Daily Intake
TLV – Threshold Limit Value
TWA – Time Weighted Average

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Abbreviations and acronyms:

UFI – Unique Formulation Identifier
UN – United Nations
vPvB - Very Persistent and Very Bioaccumulative
WEL – Workplace Exposure Limit
WGK – Wassergefährdungsklasse – German water quality classification

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.
Prepared by : Nexreg Compliance Inc.

www.Nexreg.com



Full text of H- and EUH-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH071	Corrosive to the respiratory tract.
EUH208	Contains Dibutyl thiourea. May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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Full text of H- and EUH-statements:

Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Corr. 1C	H314	On basis of test data
Eye Dam. 1	H318	On basis of test data
EUH208	EUH208	Calculation method

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