

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Trade name : LESS Plus Medium  
Product code : NCM0202|NCM3206

#### 1.2. Other means of identification

Part Number(s) : NCM0202|700003485|700003486|700003487|700003488|700007650|700007651|NCM3206|70004860

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Laboratory chemicals, Scientific research and development

#### 1.4. Supplier's details

Neogen Corporation  
620 Leshler Place  
Lansing, Michigan 48912  
United States of America  
T 800.234.5333  
[sds@neogen.com](mailto:sds@neogen.com) - <https://www.neogen.com/>

#### 1.5. Emergency phone number

Emergency number : 24 hours:  
Medical: 1-800-498-5743 (U.S. and Canada) or 1-651-523-0318 (international)  
Spill/CHEMTREC: 1-800-424-9300 (U.S. and Canada) or 1-703-527-3887 (international)

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning  
Hazard statements (GHS US) : H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
Precautionary statements (GHS US) : P261 - Avoid breathing dust, fume, gas, mist, vapors, spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P272 - Contaminated work clothing must not be allowed out of the workplace.  
P280 - Wear protective gloves.

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

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).  
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P337+P313 - If eye irritation persists: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 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

25.22% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)  
34.76% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)  
46.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
Lithium chloride	CAS-No.: 7447-41-8	10 – 15	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Sodium carbonate	CAS-No.: 497-19-8	1 – 5	Eye Irrit. 2, H319
Sodium pyruvate	CAS-No.: 113-24-6	1 – 5	Eye Irrit. 2, H319 Skin Sens. 1B, H317

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

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : If you feel unwell, seek medical advice.  
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 or rash 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 : Call a poison center/doctor/physician if you feel unwell.  
Personal protection for first-aid responders. : First aid workers will be equipped with suitable personal protective equipment.

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

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

Other medical advice or treatment	: Treat symptomatically.
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## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
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

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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#### For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

#### For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel.
Environmental precautions	: Avoid release to the environment.

### 6.2. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### 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. Avoid breathing dust/fume/gas/mist/vapors/spray.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Protect from sunlight.
Storage temperature	: 2 – 30 °C
Packaging materials	: Store always product in container of same material as original container.

### SECTION 8 Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 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, such as personal protective equipment

##### Personal protective equipment:

Wear recommended personal protective equipment.

<b>Hand protection:</b>
Protective gloves
<b>Eye protection:</b>
Safety glasses
<b>Skin and body protection:</b>
Wear suitable protective clothing
<b>Respiratory protection:</b>
In case of insufficient ventilation, wear suitable respiratory equipment

##### Personal protective equipment symbol(s):



### SECTION 9 Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Powder.

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Color	: Beige
Odor	: Characteristic
Odor threshold	: No data available
pH	: 7 – 7.4
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Explosion limits	: Not applicable
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

The product is non-reactive under normal conditions of use, storage and transport.

### 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

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 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.

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

LESS Plus Medium	
Unknown acute toxicity (GHS US)	25.22% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 34.76% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 46.11% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))
Lithium chloride (7447-41-8)	
LD50 oral rat	526 mg/kg (Rat, Male, Experimental value, Oral)
LD50 oral	526 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))
LD50 dermal rabbit	1488 mg/kg Source: Corporate Solution From Thomson Micromedex
LC50 Inhalation - Rat	> 5.57 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE US (oral)	526 mg/kg body weight
ATE US (dermal)	1488 mg/kg body weight
Sodium carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg (Rat, Male / female, Experimental value of similar product, Hydrate form, Oral, 14 day(s))
LD50 oral	2800 mg/kg
LD50 dermal rabbit	> 2000 mg/kg (16 CFR 1500.40, 24 h, Rabbit, Experimental value of similar product, Hydrate form, Dermal, 14 day(s))
LD50 dermal	2500 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.2 mg/l/4h
ATE US (oral)	2800 mg/kg body weight
ATE US (dermal)	2500 mg/kg body weight
ATE US (dust, mist)	1.2 mg/l/4h
Sodium pyruvate (113-24-6)	
LD50 oral	3533 mg/kg body weight (Mouse, Experimental value, Oral)
LD50 dermal rat	> 3000 mg/kg body weight (Rat, Male, Experimental value, Intraperitoneal)
ATE US (oral)	3533 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation. pH: 7 – 7.4
Lithium chloride (7447-41-8)	
pH	7 (57 %, 20 °C, OECD 105: Water Solubility)
Sodium pyruvate (113-24-6)	
pH	7 (10 %)
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7 – 7.4
Lithium chloride (7447-41-8)	
pH	7 (57 %, 20 °C, OECD 105: Water Solubility)

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Sodium pyruvate (113-24-6)	
pH	7 (10 %)

Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Lithium chloride (7447-41-8)	
NOAEL (oral,rat,90 days)	84.8 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 452 (Chronic Toxicity Studies)

Aspiration hazard : Not classified

LESS Plus Medium	
Viscosity, kinematic	Not applicable

Lithium chloride (7447-41-8)	
Viscosity, kinematic	Not applicable (solid)

Sodium carbonate (497-19-8)	
Viscosity, kinematic	Not applicable (solid)

Sodium pyruvate (113-24-6)	
Viscosity, kinematic	Not applicable (solid)

Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

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.

Lithium chloride (7447-41-8)	
LC50 - Fish [1]	158 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	249 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	> 400 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

<b>Lithium chloride (7447-41-8)</b>	
EC50 72h - Algae [2]	112 mg/l Test organisms (species): <i>Desmodesmus subspicatus</i> (previous name: <i>Scenedesmus subspicatus</i> )
ErC50 algae	> 400 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, <i>Desmodesmus subspicatus</i> , Static system, Fresh water, Experimental value, Nominal concentration)
LOEC (chronic)	2.53 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC (chronic)	1.7 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic fish	17.35 mg/l Test organisms (species): <i>Danio rerio</i> (previous name: <i>Brachydanio rerio</i> ) Duration: '34 d'
NOEC chronic algae	25 mg/l

<b>Sodium carbonate (497-19-8)</b>	
LC50 - Fish [1]	300 mg/l (96 h, <i>Lepomis macrochirus</i> , Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	200 – 227 mg/l (48 h, <i>Ceriodaphnia</i> sp., Semi-static system, Fresh water, Experimental value, Locomotor effect)
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): <i>Ceriodaphnia</i> sp.
EC50 96h - Algae [1]	242 mg/l Source: ECOTOX

<b>Sodium pyruvate (113-24-6)</b>	
LC50 - Fish [1]	> 100 mg/l (96 h, Pisces, QSAR, Nominal concentration)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value, Nominal concentration)
EC50 72h - Algae [1]	2.78 mg/l Test organisms (species): <i>Raphidocelis subcapitata</i> (previous names: <i>Pseudokirchneriella subcapitata</i> , <i>Selenastrum capricornutum</i> )
EC50 96h - Algae [1]	9480000 mg/l Source: ECOSAR
ErC50 algae	> 3 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, <i>Pseudokirchneriella subcapitata</i> , Static system, Fresh water, Experimental value, GLP)
NOEC (chronic)	3.95 mg/l Test organisms (species): Duration: '28 d'

## 12.2. Persistence and degradability

<b>LESS Plus Medium</b>	
Persistence and degradability	Not rapidly degradable

<b>Lithium chloride (7447-41-8)</b>	
Persistence and degradability	Biodegradability in soil: not applicable, Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

<b>Sodium carbonate (497-19-8)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

<b>Sodium pyruvate (113-24-6)</b>	
Persistence and degradability	Readily biodegradable in water.

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### 12.3. Bioaccumulative potential

#### Lithium chloride (7447-41-8)

Partition coefficient n-octanol/water (Log Pow) -0.46 (Estimated value, KOWWIN, 20 °C)

Bioaccumulative potential Not bioaccumulative.

#### Sodium carbonate (497-19-8)

Partition coefficient n-octanol/water (Log Pow) -6.19 Source: Quantitative Structure Activity Relation

Bioaccumulative potential Not bioaccumulative.

#### Sodium pyruvate (113-24-6)

Partition coefficient n-octanol/water (Log Pow) -3.8 (Practical experience/observation, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)

Bioaccumulative potential Not bioaccumulative.

### 12.4. Mobility in soil

#### Lithium chloride (7447-41-8)

Surface tension No data available (test not performed)

Ecology - soil Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

#### Sodium carbonate (497-19-8)

Surface tension No data available in the literature

Ecology - soil Low potential for adsorption in soil.

#### Sodium pyruvate (113-24-6)

Surface tension No data available in the literature

Ecology - soil No (test)data on mobility of the substance available.

### 12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

## SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Sewage disposal recommendations : Disposal must be done according to official regulations.  
Product/Packaging disposal recommendations : Comply with applicable regulations for solid waste disposal. Disposal must be done according to official regulations.  
Additional information : Do not re-use empty containers.

## SECTION 14 Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
<b>14.1. UN number</b>			
Not regulated for transport			

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

DOT	TDG	IMDG	IATA
<b>14.2. Proper Shipping Name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
Not regulated	Not regulated	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

#### IMDG

Not regulated

#### IATA

Not regulated

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are exempt or present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

#### Sodium phosphate, dibasic (7558-79-4)

CERCLA RQ	5000 lb
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#### Ferric ammonium citrate (1185-57-5)

CERCLA RQ	1000 lb
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### 15.2. International regulations

No additional information available

# LESS Plus Medium

## Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

### 15.3. State regulations

 **WARNING:** This product can expose you to Nalidixic acid, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### SECTION 16 Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Revision date : 8/4/2025  
Issue date : 11/22/2024

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

Safety Data Sheet (SDS), USA

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.