Middlebrook 7H11 Agar

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)
Issue date: 05-12-2025 Revision date: 10-08-2025 Supersedes: 10-01-2025 Version: 3.0

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture
Trade name : Middlebrook 7H11 Agar
Type of product : Food Safety -- [Food Safety]
Product code : NCM0043

1.2. Other means of identification

Part Number(s) : NCM0043|400000761|700003073|NCM0043A|700003074|NCM0043B|700003076|NCM0043E

1.3. Recommended use of the chemical and restrictions on use

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

1.4. Supplier's details

Manufacturer
Neogen Corporation
620 Lesher Place
Lansing, Michigan 48912
United States of America
T 800.234.5333
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

Classification (GHS CA)

Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.

Full text of H statements : see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :

Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H319 - Causes serious eye irritation
Precautionary statements (GHS CA) : P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, and hearing protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice or attention.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
Ammonium sulfate	Ammonium sulfate actamaster / ammonium sulfate / ammonium sulfate(2:1) / ammonium sulphate / diammonium sulphate / dolamin / mascagnine / mascagnite / mascagnite, natural / sulfuric-acid-diammonium-salt-	CAS-No.: 7783-20-2	≥ 1 – < 5	Aquatic Acute 3, H402 Aquatic Chronic 3, H412

L-(+)-tartaric acid	2,3-Dihydroxybutanedioic acid (+)-tartaric acid / (2R,3R)-(+)-tartaric acid / (2R,3R)-tartaric acid / (R,R)(+)-tartaric acid / (R,R)-tartaric acid / [R-(R*,R*)]-2, 3-dihydroxybutanedioic acid / [theta-(theta, theta)]-butanedioic acid, 2,3-dihydroxy- / [θ-(θ, θ)]-butanedioic acid, 2, 3-dihydroxy- / 1,2-dihydroxyethane-1,2-dicarboxylic acid / 2,3-dihydrosuccinic acid, L- / 2,3-dihydroxybutanedioic acid, [R-(R*,R*)]- / 2,3-dihydroxybutanedioic acid, L- / 2,3-dihydroxysuccinic acid, dextro- / 2,3-dihydroxysuccinic acid, L- / 3-hydroxymalic acid, L- / butanedioic acid, 2, 3-dihydroxy-[θ-(θ, θ)]- / butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]- / butanedioic acid, 2,3-dihydroxy-, L- / butanedioic acid, 2,3-dihydroxy-[theta-(theta, theta)]- / d-alpha, beta-dihydroxysuccinic acid / dextro-(+)-tartaric acid / dextro-2,3-dihydroxysuccinic acid / dextro-alpha,beta-dihydroxysuccinic	CAS-No.: 87-69-4	≥ 1 – < 5	Eye Dam. 1, H318 Aquatic Acute 3, H402 Aquatic Chronic 3, H412

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
	acid / dextro-tartaric acid / dextro-α, β-dihydroxysuccinic acid / dihydroxysuccinic acid, L-(+)- / d-tartaric acid / L-(+)-dihydroxysuccinic acid / L-(R,R)-(+)-tartaric acid / L-2,3-dihydrosuccinic acid / L-2,3-dihydroxybutanedioic acid / L-2,3-dihydroxysuccinic acid / L-3-hydroxymalic acid / L-malic acid, 3-hydroxy- / L-succinic acid, 2, 3-dihydroxy- / L-tartaric acid / L-thearic acid / L-threaric acid / natural tartaric acid / ordinary tartaric acid / tartaric acid NF / tartaric acid, (+)- / tartaric acid, (2R,3R)- / tartaric acid, (2R,3R)-(+)- / tartaric acid, (R,R)- / tartaric acid, (R,R)(+)- / tartaric acid, dextro- / tartaric acid, dextro(+)- / tartaric acid, dextrorotatry / tartaric acid, L- / tartaric acid, L-(+)- / tartaric acid, natural / tartaric acid, ordinary / thearic acid, L- / threaric acid, L- / α,β-dihydroxysuccinic acid, dextro-			

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 after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
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.
First-aid measures general : If you feel unwell, seek medical advice.
Personal protection for first-aid responders. : First aid workers will be equipped with suitable personal protective equipment.

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 : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
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.

SECTION 5 Fire-fighting measures

5.1. Suitable 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 actions 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.
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.

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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 (PPE)

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:
Protective gloves

Eye protection:
Safety glasses

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
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.
Color	:	Beige
Odor	:	Characteristic
Odor threshold	:	No data available
pH	:	6.4 – 6.8
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	Not applicable
Boiling point	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable.
Vapor pressure	:	No data available
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
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

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	None under recommended storage and handling conditions (see section 7).
Incompatible materials	:	No additional information available
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time:	:	No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

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

Middlebrook 7H11 Agar	
Unknown acute toxicity (GHS CA)	15.63% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral) 92.21% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal) 92.21% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

Ammonium sulfate (7783-20-2)	
LD50 oral rat	4250 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 434: Acute Dermal Toxicity - Fixed Dose Procedure, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE CA (oral)	4250 mg/kg body weight

L-(+)-tartaric acid (87-69-4)	
LD50 oral rat	2000 – 5000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, 14 day(s), Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE CA (oral)	3500 mg/kg body weight

Skin corrosion/irritation : Not classified.
pH: 6.4 – 6.8

Ammonium sulfate (7783-20-2)	
pH	5.5 (1.3 %)

L-(+)-tartaric acid (87-69-4)	
pH	1 – 2 (15 %, 25 °C)

Serious eye damage/irritation : Causes serious eye irritation.
pH: 6.4 – 6.8

Ammonium sulfate (7783-20-2)	
pH	5.5 (1.3 %)

L-(+)-tartaric acid (87-69-4)	
pH	1 – 2 (15 %, 25 °C)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Ammonium sulfate (7783-20-2)	
NOAEL (chronic,oral,animal/male,2 years)	256 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (chronic,oral,animal/female,2 years)	284 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

L-(+)-tartaric acid (87-69-4)	
NOAEL (subchronic,oral,animal/male,90 days)	≈ 2460 mg/kg body weight Animal: , Animal sex: male
NOAEL (subchronic,oral,animal/female,90 days)	≈ 3200 mg/kg body weight Animal: , Animal sex: female

Aspiration hazard : Not classified

Middlebrook 7H11 Agar	
Viscosity, kinematic	Not applicable

Ammonium sulfate (7783-20-2)	
Viscosity, kinematic	Not applicable (solid)

L-(+)-tartaric acid (87-69-4)	
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 : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

SECTION 12 Ecological information

12.1. Toxicity

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

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

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

Ammonium sulfate (7783-20-2)	
LC50 - Fish [1]	53 mg/l (96 h, Oncorhynchus mykiss, Fresh water)
LC50 - Fish [2]	57.2 mg/l Test organisms (species): Prosopium williamsoni
EC50 - Crustacea [1]	169 mg/l (48 h, Daphnia magna, Static system, Fresh water)
EC50 - Other aquatic organisms [1]	121.7 mg/l Test organisms (species): other:

L-(+)-tartaric acid (87-69-4)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
LC50 - Fish [2]	> 100 mg/l Test organisms (species):
EC50 - Crustacea [1]	93.313 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]	51.404 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)
EC50 96h - Algae [1]	337000 mg/l Source: Ecological Structure Activity Relationships
NOEC chronic fish	43.141 g/l Test organisms (species): Duration: '30 d'

12.2. Persistence and degradability

Middlebrook 7H11 Agar	
Persistence and degradability	Not rapidly degradable

Ammonium sulfate (7783-20-2)	
Persistence and degradability	Biodegradability in water: no data available.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

L-(+)-tartaric acid (87-69-4)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	0.35 g O_2/g substance
Chemical oxygen demand (COD)	0.42 g O_2/g substance
ThOD	0.53 g O_2/g substance

12.3. Bioaccumulative potential

Ammonium sulfate (7783-20-2)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-5.1 (Experimental value, Equivalent or similar to OECD 107, 25 °C)

L-(+)-tartaric acid (87-69-4)	
Bioaccumulative potential	Not bioaccumulative.
Partition coefficient n-octanol/water (Log Pow)	-1.91 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)

12.4. Mobility in soil

Ammonium sulfate (7783-20-2)	
Ecology - soil	Adsorption to soil is possible.

L-(+)-tartaric acid (87-69-4)	
Surface tension	No data available in the literature
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

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 TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			

TDG	DOT	IMDG	IATA
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

TDG
Not regulated

DOT
Not regulated

IMDG
Not regulated

IATA
Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]

Not applicable

SECTION 15 Regulatory information

L-(+)-tartaric acid (87-69-4)	
Listed on the Canadian DSL (Domestic Substances List)	
Canada DSL & NDSL Flags	Significant New Activity (SNAc) provisions of the Act apply

L-(+)-tartaric acid (87-69-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active
Listed on INSQ (Mexican National Inventory of Chemical Substances)

SECTION 16 Other Information

Issue date : 05-12-2025
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Supersedes : 10-01-2025

Full text of hazard classes and H-statements:	
H318	Causes serious eye damage

Full text of hazard classes and H-statements:	
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), Canada

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.