

MIDDLEBROOK 7H9 BROTH BASE

SECTION 1: PRODUCT IDENTIFICATION

Product Name: Middlebrook 7H9 Broth Base

Product Code: TM 213

REACH Registration Number: This product is a mixture. Reach registration number is not available for this mixture

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses :Laboratory Chemicals, Analytical Purpose, Biochemical Analysis. For InVitro Diagnostic Use

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]

Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008.

Label elements

Labeling according to Regulation (EC) No.1272/2008

The product does not need to be labelled in accordance with EC directives or respective national laws.

Other hazards

None

SECTION 3: COMPOSITION /INFORMATION ON INGREDIENTS

Component	Classification	Concentration
Ferric ammonium citrate		
CAS No. : 1185-57-5 EC No. : 214-686-6	As Per EC Regulation 1272/2008 Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H315; H319; H335	>=0.1 - <=1.0%

Component	Classification	Concentration
Calcium chloride, anhydrous		
CAS No. : 10043-52-4 EC No. : 233-140-8	As Per EC Regulation 1272/2008 Eye Irrit. 2A H319	>=1.0 - <=5.0%

Component	Classification	Concentration
Zinc sulphate		
CAS No. : 7446-19-7 EC No. : 231-793-3	As Per EC Regulation 1272/2008 Eye Dam. 1; Aquatic Chronic 1 H318; H410	>=0.01 - <=0.1%

Component	Classification	Concentration
Copper sulphate		
CAS No. : 7758-98-7 EC No. : 231-847-6	As Per EC Regulation 1272/2008 Acute Tox.oral 4; Skin Irrit. 2; Eye Irrit. 2A; Aquatic Chronic 1 H302; H315; H319; H410 As Per EC Directive 67/548/EEC or 1999/45/EC Xn; Xi; N R22; R36/38; R50/53	>=0.01 - <=0.1%

Refer Section 16 for complete statement of H codes and its classification



SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

No data available.

Indication of immediate medical attention and special treatment needed

No data available

SECTION 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

No data available

Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas, Sodium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert adsorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

Conditions for safe storage, including any incompatibilities Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended Storage Temperature: On receipt store between 10-25°C

Specific end uses



Apart from the uses mentioned in section 1, no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.

Personal protective equipment

Hygiene measure

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection

Tightly fitting safety goggles; Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection Handle with gloves.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environment exposure controls

Do not empty into drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

a) Appearance	:	Cream to beige coloured homogeneous free flowing powder.
b) Odour	:	No data available
c) Odour Threshold	:	No data available
d) pH	:	6.40 - 6.80
e) Melting point/freezing point	:	No data available
f) Initial boiling point and boiling range	:	No data available
g) Flash point	:	No data available
h) Evaporation rate	:	No data available
i) Flammability (solid, gas)	:	No data available
j) Upper/lower flammability or explosive limits	:	No data available
k) Vapour pressure	:	No data available
l) Vapour density	:	No data available
m) Relative density	:	No data available
n) Water solubility	:	No data available
o) Partition coefficient octanol/water	:	No data available
p) Auto-ignition temperature	:	No data available



q) Decomposition temperature	:	No data available
r) Viscosity	:	No data available
s) Explosive properties	:	No data available
t) Oxidizing properties	:	No data available

Other safety information

No data available

SECTION 10: STABILITY AND REACTIVITY DATA

Reactivity:No data available

Chemical stability:No data available.

Possibility of hazardous reactions: No data available

Conditions to avoid:No data available

Incompatible materials: No data available

Hazardous decomposition products: Refer Section 5

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC: No component of this product is present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No data available

Specific target organ toxicity- single exposure: No data available

Aspiration hazard: No data available

Potential Health

Effects Inhalation: REFER SECTION 2

Skin: REFER SECTION 2

Eyes:REFER SECTION 2

Ingestion: REFER SECTION 2

Additional Information: RTECS: Not available

Components

Ferric ammonium citrate

Acute Oral Toxicity RatLD50: >2000 mg/kg

Acute Potential Health Effects Skin Contact may cause irritation or rash, particularly with moist skin. Eyes May cause eye irritation with redness, tearing, and abrasion. Inhalation Inhalation of high concentrations of dust may cause nasal, throat or lung irritation. Symptoms may include coughing and wheezing. Ingestion Ingestion can produce gastrointestinal tract irritation with hyper motility, diarrhea.

Chronic Potential Health Effects Eyes Prolonged eye contact may cause a brownish discoloration of the eyes.

Skin Prolonged skin contact may cause skin irritation.

Additional information: RTECS: GE7540000

Copper sulphate

Acute oral toxicity Rat LD50: 482 mg/kg Acute dermal toxicity Rat LD50:>2000 mg/kg

Skin irritation Rabbit Result: Non irritant

Eye irritation Rabbit Result: Highly irritating

Skin sensitization Guinea pig Result: Non sensitizing Genetic toxicity(in-vitro)

Ames test Result: Negative (As Per OECD Test Guideline 471) Genetic toxicity(in-vivo)

Mouse Micronucleus assay Result: Negative



Carcinogenicity Rat Result: Negative Toxicity to Reproduction No data available

Teratogenicity No data available

Additional information: RTECS: GL8800000

Calcium chloride Acute oral toxicity Rat LD50 : 1,000 mg/kg (As per IUCLID) Acute dermal toxicity Rat LD50 : 2,630 mg/kg (As per IUCLID)

Skin irritation Rabbit Result : No irritation (As per OECD Test Guideline 404)

Eye irritation Rabbit Result: Eye irritation (As per OECD Test Guideline 405) Causes serious eye irritation.

Additional Information RTECS: EV9800000

Zinc Sulphate, Heptahydrate Acute Oral Toxicity Rat LD50: 1,260 mg/kg (As Per RTECS)

Additional information RTECS: ZH5300000

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

No data available

Components

Zinc Sulphate, Heptahydrate

Toxicity to fish *Oncorhynchus mykiss* (rainbow trout) LC50: 0.1 mg/l; 96 h (As Per ECOTOX Database)

Toxicity to algae *Scenedesmus quadricauda* (green algae) IC50: 0.52 mg/l; 5 d (As Per IUCLID)

Component: Copper sulphate

Toxicity to fish *Oncorhynchus mykiss* Flow through test LC50: 200 µg/L; 96h

Toxicity to aquatic invertebrates *Daphnia magna* (Water flea) Static test LC50: 7 µg/L; 48h

Toxicity to aquatic alga and cyanobacteria *Phaeodactylum tricorutum* Static test EC10: 2.9 µg/L; 72h

Toxicity to terrestrial arthropods *Folsomia fimetaria* EC10 : 688mg/kg; 21d

Components Calcium chloride

Toxicity to fish *Lepomis macrochirus* (Bluegill sunfish) LC50 : 10,650 mg/l; 96 h (As per IUCLID) Toxicity to daphnia and other aquatic invertebrates *Daphnia magna* (Water flea) EC50 : 144 mg/l; 48 h (As per IUCLID)

Toxicity to algae Algae IC50 : 3,130 mg/l; 120 h (As per IUCLID)

Ammonium Ferric Citrate Eco toxicity No data available.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

PBT and vPvB assessment: This preparation contains no substance considered to be persistent, bioaccumulating or toxic (PBT) at levels of 0.1% or higher.

Other adverse effects No data available

SECTION 13: DISPOSAL CONSIDERATION

Waste treatments methods

Product

Offer surplus and non- recyclable solutions to a licenced company. Contact a licenced professional waste disposal service to dispose off this material.

Contaminated packaging

Dispose of as unused product

SECTION 14: TRANSPORT INFORMATION

UN - No

ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

UN proper shipping name



ADNR : Not dangerous goods
ADR : Not dangerous goods
IATA_C : Not dangerous goods
IATA_P : Not dangerous goods
IMDG : Not dangerous goods
RID : Not dangerous goods

Transport hazard class(es)

ADNR : - ADR : - IATA_C : - IATA_P : - IMDG : - RID : -

Packaging group

ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

Environmental hazards

ADNR : No ADR : No IMDG : Marine Pollutant No IATA_C : No IATA_P : No RID : No

Special precautions for use No data available

SECTION 15: REGULATORY INFORMATION

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Safety health and environment regulations/legislation specific for the substance or mixture

No data available

Chemical Safety Assessment

No data available

SECTION 16: OTHER INFORMATION

H302 Harmful if swallowed
H315 Causes skin irritation
H318 Causes serious eye damage
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H410 Very toxic to aquatic life with long lasting effects
Acute Tox.oral 4 Acute toxicity, oral, Category 4
Aquatic Chronic 1 Hazardous to the aquatic environment, long term hazard, Category 1
Eye Dam. 1 Serious eye damage or eye irritation, Category 1
Eye Irrit. 2A Serious eye damage or eye irritation, Category 2A
Skin Irrit. 2 Skin corrosion or irritation, Category 2
STOT SE 3 Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3
R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse. Effects in the aquatic environment.
N Dangerous for the environment
Xi Irritant
Xn Harmful

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.

