



MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 08/20/2013

Version 1.1

SECTION 1. Identification

Product identifier

Product number 105448
Product name Wort agar for microbiology

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

Identified uses Use restricted under TSCA to research and development or as analytical reagent. Uses regulated under FDA or FIFRA are not affected.
Biochemical research/analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS-Labeling

Hazard Statements

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

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Base material for culture media.

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

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glycerine (>= 1 % - < 5 %)

56-81-5

ammonium chloride (>= 1 % - < 5 %)

12125-02-9

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water with the eyelid held wide open. Call in ophthalmologist if necessary.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult doctor in the event of any complaints.

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

irritant effects, Diarrhea

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO₂), Foam, Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Combustible.

Development of hazardous combustion gases or vapors possible in the event of fire.

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

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Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry.

Store at +15°C to +25°C (+59°F to +77°F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>glycerine 56-81-5</i>			
ACGIH	Time Weighted Average (TWA):	10 mg/m ³	Form of exposure: Mist.
OSHA_TRANS	PEL:	15 mg/m ³	Form of exposure: Total dust.
	PEL:	5 mg/m ³	Form of exposure: Respirable fraction.
Z1A	Time Weighted Average (TWA):	10 mg/m ³	Form of exposure: Total dust.
	Time Weighted Average (TWA):	5 mg/m ³	Form of exposure: Respirable fraction.
<i>ammonium chloride 12125-02-9</i>			
ACGIH	Time Weighted Average (TWA):	10 mg/m ³	Form of exposure: Fume.
	Short Term Exposure Limit (STEL):	20 mg/m ³	Form of exposure: Fume.
NIOSH/GUIDE	Recommended exposure limit (REL):	10 mg/m ³	Form of exposure: Fume.
	Short Term Exposure Limit (STEL):	20 mg/m ³	Form of exposure: Fume.
Z1A	Time Weighted Average (TWA):	10 mg/m ³	Form of exposure: Fume.
	Short Term Exposure Limit (STEL):	20 mg/m ³	Form of exposure: Fume.

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

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Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

SECTION 9. Physical and chemical properties

Physical state	solid
Color	beige
Odor	peptone-like
Odor Threshold	No information available.
pH	5.0 at 55 g/l 86 °F (30 °C) (after autoclaving)
Melting point	No information available.
Boiling point	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	No information available.
Relative vapor density	No information available.

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Relative density	No information available.
Water solubility	55 g/l at 212 °F (100 °C)
Partition coefficient: n- octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Bulk density	ca. 520 kg/m ³

SECTION 10. Stability and reactivity

Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

no information available

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

no information available

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Target Organs

Eyes

Skin

Respiratory system

Kidneys

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Acute oral toxicity

Symptoms: Diarrhea

Acute toxicity estimate: > 2,000 mg/kg

Calculation method

Eye irritation

slight irritation

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Further information

Quantitative data on the toxicity of this product are not available.

Further toxicological data:

Hazardous properties cannot be excluded, but are relatively improbable due to the low concentration of the dissolved substance(s).

Further data:

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

glycerine

Acute oral toxicity

LD50 rat: 12,600 mg/kg (IUCLID)

Symptoms: Vomiting, gastric pain, Diarrhea

Acute dermal toxicity

LD50 rabbit: > 18,700 mg/kg (IUCLID)

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Skin irritation

rabbit

Result: No irritation

(IUCLID)

Eye irritation

rabbit

Result: No eye irritation

OECD Test Guideline 405

Sensitization

Patch test: human

Result: negative

(IUCLID)

Germ cell mutagenicity

Genotoxicity in vitro

Ames test

Result: negative

(IUCLID)

ammonium chloride

Acute oral toxicity

LD50 rat: 1,410 mg/kg (External MSDS)

Skin irritation

rabbit

Result: No irritation

(External MSDS)

Eye irritation

rabbit

Result: Eye irritation

(External MSDS)

Sensitization

In animal experiments:

Result: negative

(External MSDS)

Germ cell mutagenicity

Genotoxicity in vitro

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(IUCLID)

Ames test

Result: negative

(IUCLID)

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

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Additional ecological information

Discharge into the environment must be avoided.

Ingredients

glycerine

Toxicity to fish

LC50 *Carassius auratus* (goldfish): > 5,000 mg/l; 24 h (Lit.)

Toxicity to daphnia and other aquatic invertebrates

EC5 *E.sulcatum*: 3,200 mg/l; 72 h (Lit.)

EC50 *Daphnia magna* (Water flea): > 10,000 mg/l; 24 h (IUCLID)

Toxicity to algae

IC5 *Scenedesmus quadricauda* (Green algae): > 10,000 mg/l; 7 d (Lit.)

Toxicity to bacteria

EC5 *Pseudomonas putida*: > 10,000 mg/l; 16 h (Lit.)

Biodegradability

63 %; 14 d

OECD Test Guideline 301C

Readily biodegradable.

Biochemical Oxygen Demand (BOD)

870 mg/g (5 d)

(External MSDS)

Chemical Oxygen Demand (COD)

1,160 mg/g

(External MSDS)

Theoretical oxygen demand (ThOD)

1,217 mg/g

(Lit.)

Ratio BOD/ThBOD

BOD5 71 %

(Lit.)

Ratio COD/ThBOD

95 %

(Lit.)

ammonium chloride

Toxicity to fish

LC50 *Cyprinus carpio* (Carp): 209 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 *Daphnia magna* (Water flea): > 100 mg/l; 48 h (Lit.)

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

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Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

Not classified as dangerous in the meaning of transport regulations.

Air transport (IATA)

Not classified as dangerous in the meaning of transport regulations.

Sea transport (IMDG)

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Target organ effects

Harmful if swallowed.

Eye irritant

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Acute Health Hazard

Chronic Health Hazard

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

ammonium chloride

12125-02-9

SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Ingredients

ammonium chloride

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Ingredients

ammonium chloride

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Ingredients

glycerine

ammonium chloride

Pennsylvania Right To Know

Ingredients

Agar

Maltose

malt extract

dextrin white

glycerine

Peptones, casein

ammonium chloride

New Jersey Right To Know

Ingredients

Agar

Maltose

malt extract

dextrin white

glycerine

ammonium chloride

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

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Notification status

TSCA: Not Listed on TSCA inventory. For Research and Development Use only. Not For Manufacturing or Commercial Purposes.

Ingredients

Peptones, casein
peptone (from soybeanmeal) papain-digested
peptone from meat tryptically digested

DSL: This product contains one or several components that are not on the Canadian DSL nor NDSL.

Ingredients

Peptones, casein
peptone (from soybeanmeal) papain-digested
peptone from meat tryptically digested

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 08/20/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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