

MATERIAL SAFETY DATA SHEET

MSDS No.: P052WM

Date of Preparation : 2018/7/6

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Ab-Capcher MAG2
Product Number P-052
Supplier ProteNova Co., Ltd.
1488-1, Nishimura, Higashikagawa, Kagawa 769-2604 Japan
Phone Number +81-879-49-0702

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Constituents</u>	<u>CAS#</u>	<u>% (v/v)</u>	<u>Formula</u>
Ethanol	64-17-5	approx. 20	C ₂ H ₅ OH
Agarose	9012-36-6		

3. HAZARDS IDENTIFICATION

Emergency Overview Warning ! Flammable liquid and vapor. Combustible.
Potential Health Effects Causes eye irritation. May cause respiratory tract and skin irritation.
Contains material that can cause target organ damage.
Potential Environmental Effects Data not available

4. FIRST AID MEASURES

Eye Contact Remove contact lenses, if applicable, and flush with clean water for more than 15 minutes. Obtain medical attention if irritation persists.
Skin Contact Remove contaminated clothing immediately, and wash skin with plenty of water and soap. Receive medical treatment if irritation persists.
Inhalation Move person into fresh air, keep person warm with blanketing and rest in a respirable position. Receive medical treatment if feel sick.
Ingestion Rinse mouth with water, induce vomiting only if the person is conscious. Receive medical treatment if feel unwellness.

5. FIRE FIGHTING MEASURES

Flammability of the Product Flammable liquid. Move containers from fire area if this can be done without risk, or use water spray to keep fire-exposed containers cool. In a fire or if heated, the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
Suitable Extinguishing media Water, CO₂, Dry sand or powder.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation.
Methods for Cleaning up	Stop leak if without risk. Move containers from spill area. Wear appropriate personal protective equipment, contain and collect spillage using non-combustible absorbent material e.g. sand, earth or diatomaceous earth and place in container for disposal according to local regulations (see section 13)

7. HANDLING AND STORAGE

Handling	<p>Use non-sparking tools. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.</p> <p>Use away from heat, sparks, open flame or any other ignition source.</p> <p>Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Workers should wash hands and face after handling.</p> <p>Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.</p> <p>Avoid distribution hazards like drops and vibrations not to spill, leak, splash or vapor.</p>
Storage	Store between the following temperatures: 4 to 8 °C in original container protected from direct sunlight in a dry. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Eliminate all ignition sources. Separate from oxidizing materials.

8. EXPOSURE CONTROL, PERSONAL PROTECTION

Control Limits	Not established
Exposure Limits	
Japan Society for Occupational Health	Not established
ACGIH TLV (United States 2004)	TWA 1000ppm (1890 mg/m ³ 8hours)
Engineering Measures	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Ensure that eyewash stations and safety showers are close to the workstation
Personal Protective Equipment	Use adequate protect coat and protective goggle.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid. (Suspension)
Odor	Sweetish. Alcohol-like. (Slight)
Color	Solution : Colorless. / Suspension : Gray
Flash Point	Closed cup : 38-43 °C
Ignition Temperature	Data not available
Combustibility	Combustible

Autoreactivity / Explodability	Data not available
Solubility	Easily soluble in water.

10. STABILITY AND REACTIVITY

Autocombustibility	Data not available
Explosibility Range	Data not available
Stability/Reactivity	Stable and hazardous reaction will not occur under normal conditions of storage or use.
Materials to avoid	Keep away from ignition source.

11. TOXICOLOGICAL INFORMATION

Data not available for whole product./Following are data for Ethanol

Skin Corrosivity	Data not available			
Irritating Property (skin, eye)	rabbit	400 mg open; Mild (skin)		
	rabbit	20 mg / 24H; Moderate (skin)		
	rabbit	500 mg; Severe (eye)		
	rabbit	500 mg / 24H; Mild (eye)		
Sensitizing Property	Data not available			
Acute Toxicity (Including LD50)	Oral	human	LDL ₀	1400 mg/kg
		rat	LD ₅₀	7060 mg/kg
	Percutaneous	rabbit	LDL ₀	20 g/kg
	Inhale	mouse	LCL ₀	39 g/m ³ /24H
		rat	LC ₅₀	20,000 ppm / 4H
Chronic Toxicity	Data not available			
Carcinogenicity	Data not available			
Mutagenicity	Microbial	Salmonella (+S9)	positive	
	Chromosoma	Hamster (ex vivo)	positive	
	I disorder			
	Micronucleus mouse (in vivo/intraperitoneal); positive			
Reproductive Toxicity	Data not available			
Teratogenicity	Data not available			
Other	None			

12. ECOLOGICAL INFORMATION

Biodegradability	Ethanol : Biodegradable
Accumulativity	Data not available
Fish Toxicity	Data not available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

14. TRANSPORT INFORMATION

International Transport Regulations Not Classified. (Aqueous solutions containing 24% or less alcohol by volume is not subject to these regulations)

International Classification /Ethanol 3 **UN Number** 1170

Transportation Method Confirm that none of content have been leaked. Load container with protecting from direct sunlight. Prevent a fall or collapse of cargo not to damage container.

15. REGULATORY INFORMATION

HCS Classification Not regulated

US Federal Regulations United States inventory (TSCA 8b): All components are listed or exempted.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304/311/312 hazardous chemicals: Ethanol
SARA 311/312 MSDS distribution – chemical inventory – hazard identification: Ethanol: Fire hazard, Immediate(acute) health hazard, Delayed (chronic) health hazard

State regulation None of the components are listed.

16. OTHER INFORMATION

Notice to Reader The information contained herein is based on the best of our knowledge. However, the above-named supplier assumes no liability whatsoever for the accuracy or completeness of the information contained herein.