

MATERIAL SAFETY DATA SHEET

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Product : MZ100139EX
Product name: SHUMMA ENGINE CONDITIONER
File No. : 605-0957
UN No. : 1950

Ingredients	Content (Wt%)	CAS No.
Petroleum	: 35 or less	64742-94-5/64742-88-7
Ethylene Glycol Monoethyl Ether	: 5 or less	110-80-5
Ethylene Glycol Monobutyl Ether	: 10 or less	111-76-2
Oleic Acid	: 7 or less	112-80-1
N,N-Dimethyl Amino Ethanol	: 2 or less	108-01-0
Coconut Fatty Acid Diethanolamide (1:2)	: 3 or less	68440-04-0
POE (10) Nonylphenyl Ether (Polyoxyethylene Nonylphenyl Ether)	: 3.5 or less	9016-45-9
Fluoric Compound	: Small amount	—
1,2,3-Benzotriazole	: Small amount	95-14-7
Disodium Ethylenediaminetetraacetate	: Small amount	6381-92-6
Refined Water	: 20 or more	—
Aqueous Ammonia	: 5 or less	1336-21-6
Propane	: 15 or less	74-98-6

Hazard and Toxicity	Category: Ignitable liquid, flammable high pressure gas
Hazard	: Composed of ignitable liquid and gas, the explosive mixture is formed, and it may explode at a high temperature.
Toxicity	: Irritative to the skin and eyes. Long-sustained or repeated contact may cause the skin trouble.
Environmental impact	: No related data available.

First Aid

Eye contact	: Flush eyes with water for at least 15 minutes, and consult a doctor.
Skin contact	: Take off contaminated clothing, shoes, etc. and wash skin with water and soap well. Consult a doctor, if necessary.
Inhalation	: Remove victim to fresh air and rest. In case of any disorder, such as malaise or difficult breathing, immediate doctor's diagnosis is required.
Ingestion	: Forced vomiting must be avoided. Consult a doctor.

Action in Case of Fire

Fire extinguisher	: Dry chemical, CO ₂ , foam or dry sand
Fire fighting	: Shoot or spray a dry chemical, CO ₂ on the flame - from the windward side at an enough distance from the fire as the product is a highly explosive aerosol. Shutting off the air with foam or dry sand or cooling the flame-exposed surface with atomized water is also effective. Wear appropriate protectors without fail. Cool heated product with sprayed water. In case of a neighboring fire, remove the product to safety immediately.

Action in Case of Spill

Remove all flames, sparks and heat sources in the neighborhood.
In case of indoor spillage, ventilate well.
Absorb the spill with waste cloth or sand and place in an empty container.
Wear appropriate protectors (gloves, respirator, goggles, etc.) to protect the skin from spilt liquid and prevent gas inhalation.

Handling and Storage Precautions

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| Handling | : | Do not use the product near a fire or an open flame.
Avoid heavy use indoors where an open flame is used.
Do not throw away the container into a fire.
Do not discard the container until it is completely emptied.
Observe precautions stated on the container. |
| Storage | : | Since the product may explode at a high temperature, keep it away from the sunshine, open flames or where the temperature can be exceeded 40°C.
Do not store the product near water or in any moist place. |
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Protection

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| Protective equipment | : | When the product is heavily used indoors, install a ventilator (explosion-proof) to let fresh air in the room. |
| Protectors | : | Respirator, goggles, oil-proof gloves and static-free clothing. |
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Physical and Chemical Properties

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| Appearance | : | Yellow transparent liquid |
| Boiling point | : | N/A |
| Vapor pressure (25°C) | : | 0.50 MPa |
| Volatility | : | N/A |
| Melting point | : | N/A |
| Specific gravity (25°C) | : | 0.94 (Undiluted solution) |
| Solubility in water | : | N/A |
| Flash point | : | N/A |
| Explosion limit | : | Upper limit 2.2% (spray medium)
Lower limit 9.5% (spray medium) |
| Self-reactivity/explosiveness | : | Easy to make explosive mixed gas |
| Dust explosiveness | : | N/A |
| Flammability | : | Flammable |
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Disposal Precautions

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| Small quantity: | : | Press the button to discharge the gas until the hissing sound can no longer be heard. |
| Large quantity | : | Under contract, entrust disposal to a licensed waste disposal operator. |
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Others

This data sheet contains latest data of the safe handling of the product in ordinary use but is not perfect. It is subject to revision, such as addition of new data or updating. Before the product is mixed with any other product or used under any special conditions, it should undertake safety evaluations. The data in this sheet are not guaranteed.
