SAFETY DATA SHEET

1. Identification

Product Name	**Moty's M362 (Racing Brake Fluid)**
Chemical Family / Description	Mixture substances
Intended Use	Brake Fluid (BF)
Campany	TRIBO JAPAN Co., Ltd.
Address	2-25-4 Higashi-nippori Aarakawa-ku Tokyo 116-0014 Japan
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2. Hazards Identification

Classification of the Substance or Mixture

Classification

Physical hazards
- Not Classified.

Health hazards
- Skin corrosion/ irritation Category 3
- Serious eye damage or eye irritation Category 2
- Reproductive toxicity Category 2
- Specific target organ toxicity (repeated exposure) Kidney / liver Category 1

Environmental hazards
- Not Classified.

Classification According to Directive 67/548/EEC, 1999/45/EC
- Irritating to eyes.

Label Elements

Labelling to Regulation (EC) No. 1272/2008 as Amended

Hazard pictograms

Signal Word
- Warning

Hazard Statemen
- Causes serious eye irritation.
- May cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary Statements
- Do not breathe vapour/ spray.
- Wash contaminated skin thoroughly after handling.
- Wear protective gloves/ protective clothing/ eye protection/ face protection.
- **If in Eyes:** Rinse cautiously with water for several minutes. Rer contact lenses, if present and easy to do. Continue rinsing.
- Get medical advice/attention if you feel unwell.
- If eye irritation persists: Get medical advice/attention.

- Dispose of contents/container in accordance with national regulations.

Contains
- 2-[2-(2-butoxyethoxy) ethoxy] ethanol, 2, 2'-oxybisethanol, 2-(2-butoxyethoxy) ethanol.

Other Hazards
- Product is not classed as flammable or combustible but will burn.

3. Composition / Information on Ingredients

Substances

Ingredient Name	CAS No.	mass%
Triethylene glycol monomethyl ether	112-35-6	> 55
Polyethylene glycol monomethyl ether	9004-74-4	> 25
Triethylene glycol monomethyl ether borate ester	30989-05-0	> 15
Proprietary Brake Fluid Additive	Not required	< 5

4. First Aid Measures

General Information
- First aid personnel should wear appropriate protective equipment during any rescue.

Description of First Aid Measures

Inhalation
- Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Skin Contact
- Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye Contact
- Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely.
- If irritation persists: Seek medical attention and bring along these instructions.

Ingestion
- Get medical attention immediately. If patient is conscious, wash out mouth with water and give plenty of water to drink.
- If medical attention is delayed and an adult has swallowed several ounces, give 90-120ml of hard liquor such as 40%v/v spirits.
- For children give proportionally less at a rate of 2ml/kg bodyweight. Never give anything by mouth to an unconscious person. Do not induce vomiting unless under the direction of medical personnel.

Most Important Symptoms and Effects, both Acute and Delayed

General Information
- See Section 11 for additional information on health hazards.

Indication of any Immediate Medical Attention and Special Treatment Needed

Notes for the Doctor
- Medical personnel seeking to administer first aid are referred to the services of the Poisons Information Service who can advise in such instances.
- There is no specific antidote and treatment of over exposure should be directed at control of symptoms and the patient's clinical condition.

- Due to the diethylene glycol content this material may have a mechanism of intoxication similar to ethylene glycol and treatment similar to that for ethylene glycol poisoning may help.

5. Fire Fighting Measures

Extinguishing Media

Suitable Extinguishing Media

- Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable Extinguishing Media

- Do not use water jet as an extinguisher, as this will spread the fire.

Special Hazards Arising from the Substance or Mixture

Specific Hazards

- No special risk - combustion products may contain harmful or irritant fumes. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Advice for Firefighters

Protective Actions During Firefighting

- Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special Protective Equipment for Firefighters

- Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

- Keep unnecessary and unprotected personnel away from the spillage. Avoid contact with skin, eyes and clothing.
- Take care as floors and other surfaces may become slippery. Wear protective clothing as described in Section 8 of this safety data sheet.

Envioronmental Precautions

- Avoid discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and Material for Containment and Cleaning up

Methods for Cleaning up

- Contain spillage with sand, earth or other suitable non-combustible material. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely.
- Collect and dispose of spillage as indicated in Section 13. Flush contaminated area with plenty of water.

Reference to Other Sections

- For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and Storage

Precautions for Safe Handling

Usage Precautions
- Avoid the formation of mists.

Advice on General Occupational Hygiene
- Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Conditions for Safe Storage, Including any Incompatibilities

Storage Precautions
- Suitable bulk storage vessels are mild/stainless steel tanks fitted with a dry air breathing system or tight head steel drums. Do not store in lined tanks or drums.
- Brake fluid absorbs water from the atmosphere - always keep containers tightly closed. Avoid contamination with any other substances and in particular with mineral oils which are incompatible.

Specific end Use(s)
- Users are referred to the Specification SAE J1701 'Service Maintenance of Brake Fluids'

8. Exposure Controls and Personal Protection

Control Parameters

Occupational Exposure Limits

2,2'-oxybisethanol
- Long-term exposure limit (8-hour TWA): WEL 23 ppm 101 mg/m^3
  Short-term exposure limit (15-minute): WEL

2-(2-methoxyethoxy) ethanol
- 8 hrs TWA 10ppm; 15 mins 50.1 mg/m^3

2-(2-butoxyethoxy) ethanol
- Long-term exposure limit (8-hour TWA): WEL 10 ppm 67.5 mg/m^3
  Short-term exposure limit (15-minute): WEL 15 ppm 101.2 mg/m^3

Exposure Controls

Appropriate Engineering Controls
- Not necessary under normal conditions. If fluid is being heated or atomised, local exhaust ventilation with filter/ scrubber is recommended.

Eye/ Face Protection
- Personal protective equipment for eye and face protection should comply with European Standard EN166. Provide eyewash station.

Hand Protection
- To protect hands from chemicals, gloves should comply with European Standard EN374.
- The most suitable glove should be chosen in consultation with the glove supplier/ manufacturer, who can provide information about the breakthrough time of the glove material.
- The selected gloves should have a breakthrough time of at least 8 hours.

Other Skin and Body Protection

- Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene Measures

- Good personal hygiene procedures should be implemented.

Respiratory Protection

- Not necessary under normal conditions.

Environmental Exposure Controls

- Keep container tightly sealed when not in use.

9. Physical and Chemical Properties

Appearance	Yellow and Clear Liquid
Color	Yellow
Odour	Characteristic.
Odour Threshold	Not determined.
Melting/ Freezing Point (℃)	Not available.
Initial Boiling Point/ Range (℃)	230
Flash Point (℃)	144
Evaporation Rate	Not determined.
Flammability (solid, gas)	Not available.
Flammability or Explosion Limits	Not determined.
Vapot Pressure @20℃ (Pa)	0.27
Vapot Density (Air=1)	Not determined.
Relative Density @15℃ (g/cm^3)	1.070
Solubility (Water)	Soluble (20°C)
Partition Coefficient (Kow)	Not applicable.
Auto-ignition Temperature (℃)	Not flammable.
Decomposition Temperature (℃)	360
Viscosity @40℃ (mm^2/s)	10
Explosive properties	Not available.
Oxidising properties	Not available.

10. Stability and Reactivity

Reactivity

- There are no known reactivity hazards associated with this product.

Chemical Stability

- Stable at normal ambient temperatures and when used as recommended.

Possibility of Hazardous Reactions

- Glycol Ethers can form peroxides on storage. Glycol Ethers can react with light metals with the evolution of hydrogen.

Conditions to Avoid

- Do not distil to dryness without testing for peroxide formation.

Incompatible Materials

Materials to avoid

- Strong oxidising agents. For user safety, brake fluid should never be contaminated with any other substance.

Hazerdous Decomposition Products

- None known.

11. Toxicological Information

Information on Toxicological Eeffects

Acute Toxicity - Oral

Acute Toxicity • LD_{50} 5,000 mg/kg

Species • Rat

Notes (LD_{50}) • Product is of low acute oral toxicity. However, if any significant amount is ingested, there is a risk of renal damage which in extreme cases could lead to kidney failure, coma or death.
Other symptoms of overexposure include Central Nervous System effects, abdominal discomfort, metabolic acidosis, headache and nausea.

ATE • LD_{50} 5,000 mg/kg

Acute Toxicity - Dermal

Acute Toxicity • LD_{50} 3,000 mg/kg

Species • Rabbit

Notes (LD_{50}) • Acute percutaneous toxicity is low however massive contact with damaged skin could result in the absorption of harmful amounts.

ATE • LD_{50} 3,000 mg/kg

Acute Toxicity - Inhalation

Notes (LC_{50}) • The product is unlikely to present any significant inhalation hazard at ambient temperatures and under normal conditions of use.

Skin Corrosion/ Irritation

Human Skin Model Test

• Based on available data the classification criteria are not met. Repeated contact may de-fat the skin and cause dermatitis.

Serious Eye Damage/ Irritation

• Serious eye irritation.

Respiratory Sensitisation

• Based on available data the classification criteria are not met.

Skin Sensitisation • Based on available data the classification criteria are not met.

Germ Cell Mutagenicity

Genotoxicity - in Vitro

• Based on available data the classification criteria are not met.

Genotoxicity - in Vivo

• Based on available data the classification criteria are not met.

Carcinogenicity • Based on available data the classification criteria are not met.

Reproductive Toxicity

Reproductive Toxicity - Fertility

• Major ingredients have not been shown to cause significant fertility or development problems at levels which are not themselves toxic to the animal concerned.

Reproductive Toxicity - Development

• One minor ingredient - methyl diglycol - has been shown to affect foetus development in some studies and is classified as H631d.

Specific Target Organ Toxicity - Repeated Exposure

- There are no reports of long term adverse effects in man. For one ingredient - diethylene glycol - human STOT effects on the kidney and gastrointestinal tract have been reported.

Aspiration Hazard

- Not anticipated to present an aspiration hazard, based on chemical structure.

12. Ecological Information

Environmental Toxicity

Acute Toxicity - Fish

- LC_{50}, 96 hours: >100 mg/L, Onchorhynchus mykiss (Rainbow trout)

Acute Toxicity - Aquatic Invertebrates

- Not determined but expected to be virtually non toxic.

Acute Toxicity - Microorganisms

- Not determined but expected to be virtually non toxic.

Persistence and Degradability

- Product is inherently biodegradable and is expected to be readily biodegradable based on ingredients.

Biodegradation

- Water and sediment - Degradation 100%: 21 days.

Bioaccumulative Potential

- The product is not bioaccumulating.

Partition Coefficient

- < 2

Mobility in Soil

- The product is soluble in water. Soluble in water and will partition to aqueous phase. Volatilisation from water to air not expected. Mobile in soil until degraded.

Results of PBT and vPvB Assessment

- This substance is not classified as PBT or vPvB according to current EU criteria.

Other Adverse Effects

- Not relevant.

13. Disposal Considerations

Waste Treatment Methods

General Information

- Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal Methods

- Controlled incineration or recycling is recommended. Do not dispose of to landfill or drains. It is recommended that contaminated packaging is either incinerated or cleaned and sent for recycling.

Waste Class

- European Waste Catalogue (EWC) number: 16.01.13

14. Transport Information

General

- The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

UN Number

- Not applicable.

UN Proper Shipping Name

- Not applicable.

Transport Hazard Class(es)

- No transport warning sign required.

Packing Group • Not applicable.

Environmental Hazards • Environmentally hazardous substance/ marine pollutant.

Special Precautions for User

- Not applicable.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

- Not applicable.

15. Regulatory Information

Safety, Health and Environmental Regulations/ Legislation Specific for the Substance or Mixture

Water Hazard Classification

- WGK 1: Low hazard to waters.

Chemical Safety Assessment

- No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ ELINCS

- All the ingredients are listed or exempt.

Canada - DSL/NDSL • All the ingredients are listed or exempt.

US - TSCA • All the ingredients are listed or exempt.

Australia - AICS • All the ingredients are listed or exempt.

Japan - MITI • All the ingredients are listed or exempt.

Korea - KECI • All the ingredients are listed or exempt.

China - IECSC • All the ingredients are listed or exempt.

Philippines – PICCS • All the ingredients are listed or exempt.

New Zealand - NZIOC

- All the ingredients are listed or exempt.

16. Other Information

Risk Phrases in Full

- Harmful if swallowed.
- Irritating to eyes.
- Risk of serious damage to eyes.
- Possible risk of harm to the unborn child.

Hazard Statements in Full

- Harmful if swallowed.
- Causes serious eye damage.
- Causes serious eye irritation.
- Suspected of damaging the unborn child.
- May cause damage to organs through prolonged or repeated exposure if swallowed.
- May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.

Control No.
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Disclaimer:

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