SAFETY DATA SHEET (SDS)

Set Up Date: April 18, 2017

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT INFORMATION

Product Name : Fast-As (asphalt emulsion) Product Description: Pavement material

Reference Number : 1816 (1) **COMPANY INFORMATION**

Company Name : TOA ROAD CORPORATION

Address : 7-3-7 Roppongi, Minato-Ku, Tokyo 106-0032, JAPAN

: Product Department Division

Telephone Number : +81-3-3405-5011 FAX Number : +81-3-3405-1818

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Metal Corrosives : Not classified : Not classified Flammable Liquids Acute Toxicity (Oral) : Not classified Acute Toxicity (Dermal) : Not classified Acute Toxicity (Inhalation/gas) : Not classified : Not classified Acute Toxicity (Inhalation/vapor) Acute Toxicity (Inhalation/mist, dust) : Not classified Skin Corrosion / Irritation : Not classified Serious Eye Damage / Eye Irritation : Category 2 B : Not classified Respiratory Sensitization

Germ Cell Mutagenicity : Classification not possible Carcinogenicity : Classification not possible

Reproductive Toxicity : Not classified

Specific Target Organ Toxicity

- systemic toxicity following single exposure : Classification not possible

- systemic toxicity following repeated exposure : Not classified

Aspiration Hazard : Classification not possible : Classification not possible Hazards to the Aquatic Environment (acute) Hazards to the Aquatic Environment (chronic) : Classification not possible

W Other physical hazards not shown the above are specified as "Not applicable" or "Classification not possible".

Allocation of GHS Label Elements

Pictogram

None

Signal Word

Warning

Hazardous Information

· Cause eye irritation

Notice

Safety Measures

- · Basic component of the product is asphalt and water. It contains surfactant, stabilizing agent and acid, so immediate treatment is necessary if on skin and eyes.
- The product itself is not flammable but it contains flammable component (petroleum asphalt) after water evaporation.

- · Read this Safety Data Sheet (SDS) before use.
- Do not use this product other than main purpose.
- Wear goggles and solvent resistance gloves.

First Aid

- · If on skin, wash with plenty of soap and water. Get medical attention immediately if skin appearance has changed and/or pain remains.
- If on eyes, wash with plenty of clean water at least 15 minutes. Get medical attention immediately.

Storage

• Prevent from sunlight, water leakage, humidity and heat. Store in cool place under 30°C to prevent quality degradation/deformation.

Disposal

Dispose of contents/container to the authorized waste disposal contractor.

Important Symptoms

· No useful information at present.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance or Mixture : Mixture

Chemical Name or General Name

Chemical Name	Class Reference No.	CAS No.	ndustrial Safety and Health Act	Content
(existing chemical substance №)		Notifiable substances		
Petroleum asphalt	9-1720	8052-42-4	mineral oil	16~18%
Polystyrene	6-120, 6-134	9003-53-6, 9003-5	55-8 —	21~23%
Acrylonitrile-styren	e copolymer 6-217	26636-08-8	_	11~12%
Water	_	_	_	47~52%

4. FIRST-AID MEASURES

IF INHALED

• If the victim feels uncomfortable and has headache, remove him to fresh air. Wrap with blanket and keep at rest. Get medical attention.

IF ON SKIN

• Wash the affected area with plenty of water and soap and remove the product. If appearance has changed or irritation continues, get medical attention immediately.

IF IN EYES

- Immediately rinse the affected eyes with clean water for at least 15 minutes. Get medical attention.
- Pull back eyelid while flushing to ensure that water thoroughly washes eyeball. The delay or insufficient washing may cause damages to eyes.

INGESTION

• Rinse mouth thoroughly with water. If possible, give diluent (water) to induce vomiting and get medical attention. If the victim is unconscious, NEVER give anything by mouth.

5. FIRE FIGHTING MEASURES

EXTINGUISH MEDIA

• Foam, dry chemical powder, carbon dioxide, and dry sand.

PROHIBITED MEDIA

• Do not extinguish with straight stream water to avoid bumping

SPECIFIC FIRE-FIGHTING MEASURES

- Move all surrounding combustible materials from the site
- Keep away from all ignition sources. Use extinguisher.
- Extinguish fire from up wind position.

PERSONAL PROTECTIVES FOR FIREFIGHTERS

· Firefighters should wear appropriate protection (safety goggle, protective wears, self-breathing apparatus etc.) to avoid inhaling hazardous gas.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

- · Wipe the attached product and wash thoroughly with water.
- Use appropriate protective gears as dust proof mask, gloves and goggles.

ENVIRONMENTAL PRECAUTIONS

- · Do not wash away into sewer, watercourse or river.
- Use sand bag to prevent larger contamination and treat with cement and sand.
- If spilled into water, use oil absorption mat to prevent larger contamination.

TO CLEAN UP

- For large spills, stop further contamination with soil/sand and oil absorption mat, collect by vacuum.
- For small spills, mix with soil/sand or cement to become mortar then collect them.

SECONDARY DISASTER PREVENTION

- Notice to all related authorities for preventive measures and stop expansion.
- Put a rope around the spilled area to keep out.

7. HANDLING AND STORAGE

HANDLING

Technical Measures

- Use appropriate protective gears (see Section 8) to prevent contact with eye, skin and clothes.
- · Avoid leak, spill and dispersion. Do not produce the vapor often.
- Avoid contact with high temperature object and fire.
- Freezing may degrade product function. Do not freeze.

Local and Entirety Ventilation

• Handle at the place with local or entire ventilation.

Safe Handling Advice

• The product contains 50% of water. Keep away from water reactive material.

STORAGE

Appropriate Storage Condition

- To avoid deterioration, keep at the cool and dark place under 30°C. Avoid freezing, sunlight, water, humidity and heat.
- · Avoid exposure to air after use. Do not store too long. Avoid contamination. Comply with local laws and regulations

Safety Container Material

• In accordance with the container used for the product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING MEASURES

Install local or entire ventilation if handled indoor.

PERSONAL PROTECTION EQUIPMENT

Respiratory Protection

· Wear gas mask for organic gas, airline mask.

Hand Protection

Impermeable rubber gloves (oil proof is desirable).

Eye Protection

· Wear safety goggles or face shield.

Skin and Body Protection

· Long-sleeve working cloth, safety shoes.

APPROPREATE HYGENE MEASURES

- No eating/drinking/smoking during handling.
- · Wash hands thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Properties

Appearance : Liquid Color : Dark Brown Odor : No data : 2~5 рΗ

Specific Temperature/Temperature Range where physical properties changes

: Approx. 100°C (same as water) Boiling point : 0°C (same as water) Melting point

Flashing point : Approx. 300°C (after water evaporation completely) **Ignition point** : Approx. 480°C (after water evaporation completely)

Explosion Property

Explosion limit : no data : no data Vapor pressure

Density : Approx. 1.02 (25°C)

: Mix and disperse at an arbitrary ratio with water. **Solubility**

Octanol/water partition coefficient : no data : Approx. 100℃ **Decomposing temperature**

10. STABILITY AND REACTIVITY

STABILITY

· Stable under normal condition of handling.

POSSIBILIBTY OF HAZARDOUS REACTIONS

· No data.

CONDITIONS TO AVOID

· Do not freeze.

INCOMPATIBLE MATERIALS

· Water reactive material as quicklime or sodium.

HAZARDOUS DECOMPOSITION PRODUCTS

• No data.

11. TOXICOLOGICAL INFORMATION

Chemical name * Acute Toxicity local effect IARC evaluation

Asphalt Oral(rat)LD50: >5000mg/kg irritant

Hazardous Information of Product

Acute Toxicity

No data

Irritation

· No data

Sensitization, Carcinogenicity, Germ cell mutagenicity, Reproductive toxicity, Teratogenicity

Specific target organ toxicity/systemic toxicity (single exposure)

· No data

Specific target organ toxicity/systemic toxicity (repeated exposure)

· No data

Aspiration hazard

· No data

12. ECOLOGICAL INFORMATION

· No data

13. DISPOSAL INFORMATION

Remained waste:

· Solidify with cement and dispose in accordance with laws and regulation and local government standard.

Disposal of contaminated container/package

· When dispose used package, remove all remains inside and dispose by authorized waste disposal contractor in a manner consistent with applicable regulations.

1 4. TRANSPORT INFORMATION

International Regulations

UN Class : Not applicable **UN Number** : Not applicable

Proper Shipping Name : Not applicable

Packing Group : Not applicable

Special Precaution on Transport : Confirm the package is not damaged, corroded, leaked before transportation. Ensure to not

collapse, avoid falling, tumbling, damaging.

15. REGULAGTORY INFORMATION

Chemical Substance Control Law : Not applicable Fire Defense Law : Not applicable

Industrial Safety and Health Act : Notifiable substance (Mineral Oil)

Poisonous and Deleterious Substances Control Act : Not applicable

Ship Safety Act : Not applicable

16. OTHER INFORMATION

References

Since the evaluation of hazard is not sufficient, users should pay special attention during handling the product.

This safety data sheet is provided as a reference to ensure safety handling of hazardous and harmful chemical products at usual handling. The users must choose an appropriate treatment at handling depending on each situation on their own responsibility. This data sheet dose not guarantee for safety. The contained evaluation is not exactly sufficient for hazard and toxicity. This safety data sheet might be revised without notice according to amendment of law or new information.