



Material Safety Data Sheet

1. Product and Company Identification

Product Name Engine Flush
CAS No. Mixture
Validation Date 31 December 2012

In Case of Emergency Call :

Manufacturer / Supplier

Pheeramas Group Company Limited.
21/492-493 Klongjan Villa 4 Soi Ramkhamhaeng 142, Ramkhamhaeng Rd.,
Saphansung, Bangkok 10240, Thailand
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e-mail : info@pheeramas.com
Website : www.pheeramas.com

2. Composition and Information on Ingredients

Product Description : Detergency to nitrilize acid
: Petroleum remover

<u>Ingredient Name</u>	<u>CAS No.</u>	<u>Conc. (% w/w)</u>	<u>EU Classification</u>	<u>WHMIS Regulated?</u>
Petroleum purify TBN >12	Mixture.	30-60	Not controlled under DSD (Europe).	No.
Alkaline Base	7778-18-9	1-4.9	Not controlled under DSD (Europe).	No.
Benzenesulfonic acid, C14-24-Branched and Linear Alkyl Derivs., Calcium Salts, Overbased	115733-10-3	30-60	Not controlled under DSD (Europe).	Yes.

3. Hazards Identification

Primary Hazards and Critical Effects WARNING!
CAUSES EYE IRRITATION.

Environmental Hazards : Not classified as dangerous for the environment according to EC criteria.



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4. First Aid Measures

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
- Ingestion** : If affected person is conscious, give plenty of water to drink. Drink two large glasses of water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Skin Contact** : Wash with soap and water. Get medical attention if irritation develops.
- Eye Contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

5. Fire-Fighting Measures

- Extinguishing Media** : In case of fire, use water spray (fog), foam, dry chemicals, or CO₂.
- Fire-Fighting Procedures** : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Hazardous Decomposition Products** : These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...), sulfur Oxides (SO₂, SO₃...). Some metallic oxides.
- Flash point** : Close cup: 150°C (302°F). (Pensky-Martens. Minimum)

6. Accidental Release Measures

- Personal Precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).
- Environmental Precautions and Clean-up Methods** : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways.

Note: See section 1 for emergency contact information and section 13 for waste disposal.

7. Handling and Storage

- Handling** : Avoid contact with eyes. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated place.



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8. Exposure Controls and Personal Protection

Engineering Controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protective Equipment

Respiratory System : Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).

Skin and Body : Disposable outer garments when there is the potential for contact with the material.

Hands : Use chemical resistant, impervious gloves.

Eyes : Safety goggles are considered minimum protection. Goggles with a face shield may be necessary depending on quantity of material and conditions of use.

Occupational Exposure Limits

Ingredient Name

Calcium sulfate
ACGIH
TWA: 10 mg/m³
OSHA Notes: Respirable
TWA: 5 mg/m³

Mineral Oil
ACGIH
TWA: 5 mg/m³
STEL: 10 mg/ m³
OSHA
TWA: 5 mg/m³

9. Physical and Chemical Properties

Physical State and Appearance : Liquid. (Viscous liquid.)
Odor : Slight.
Vapor Pressure : 0.15 mm Hg at 70°C.
Specific Gravity : 1.127 at 15.6/15.6°C (target).
Solubility : Insoluble in cold water
Viscosity : 30 cSt at 100°C (target).
Auto-Ignition Temperature : 130°C (266°F)
Flash Point : Closed cup: 150°C (302°F). (Pensky-Martens. Minimum)

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10. Stability and Reactivity

Stability : The product is stable
Materials to avoid : Strong oxidizing and reducing agents.
Conditions to avoid : High temperatures, sparks, and open flames.

11. Toxicological Information

Routes of Entry : None known
Target Organs : May cause damage to the following organs: eyes.
Acute Effects
Inhalation : Inhalation of oil mist or vapors at elevated temperatures may cause respiratory irritation.
Ingestion : Practically non-toxic if swallowed.
Skin Contact : Non-irritating to the skin.
Eye Contact : Irritating to eyes. (Does not meet EU classification criteria.)
Chronic Effects
Adverse Effects : Not determined.
Carcinogenic Effects : Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Performance Additive	LD50	25000 mg/kg	Oral	Rat
	LD50	>10000 mg/kg	Dermal	Rabbit

Other Information : Not available.

12. Ecological Information

Environmental Hazards : Not classified as dangerous for the environment according to EC criteria. Based on calculation.
Environmental Fate : This product contains components which may be persistent in the environment.
Germany water class : 1

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13. Disposal Consideration

Waste Handling and Disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
DOT Classification	Not Regulated.					
TDG Classification	Not Regulated.					Not available.
ADR/RID Class	Not Regulated.					
IMDG Class	Not Regulated.					-
IATA-DGR Class	Not Regulated.					-

Notice to Reader

The above transport information is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

15. Regulatory Information

Regulations

- Risk Phrases : This product is not classified according to the EU regulations.
- Safety Phrases : Not applicable.
- Additional Warning Phrases : Not applicable.



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16. Other Information

PREPARATION INFORMATION

Date of Printing : 1 January 2012

Notice to Reader

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. Car Cosmetic makes no representation as to completeness or accuracy. In no event will Car Cosmetic be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.

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*** END OF MSDS ***