# Smart Engine Flush

## SECTION 1. IDENTIFICATION

| | |
|---|---|
| **Product Identifier** | Smart Engine Flush |
| **Part number** | PLI-021 |
| **Product Family** | Mixture |
| **Recommended Use** | Internal engine cleaner. |
| **Restrictions on Use** | None known. |
| **Supplier Identifier** | Performa Lubricants International, Inc., 42 Montrose Crescent, Whitby, ON, L1R 1C5, 905.668.1440 1.800.808.3062 |
| **Emergency Phone No.** | CANUTEC, +1.613.996.6666, Operation hours: 24/7 |

## SECTION 2. HAZARD IDENTIFICATION

**Classification**

Flammable liquid - Category 4; Aspiration hazard - Category 1

**Label Elements**

Danger
Combustible liquid.
May be fatal if swallowed and enters airways.
Keep away from flames and hot surfaces. – No smoking.
Wear protective gloves/eye protection/face protection.
IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
Do NOT induce vomiting.
In case of fire: Use carbon dioxide, dry chemical powder to extinguish.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents and container in accordance with local, regional, national and international regulations.
95
% of the mixture consists of an ingredient or ingredients of unknown acute toxicity dermal.
95
% of the mixture consists of an ingredient or ingredients of unknown acute toxicity inhalation.
95
% of the mixture consists of an ingredient or ingredients of unknown acute toxicity oral.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers |
|---|---|---|---|
| Lubricating oils (petroleum), hydrotreated spent | 64742-58-1 | 80-100 | |
| Stoddard solvent | 8052-41-3 | 1-5 | |

| | | | |
|---|---|---|---|
| n-Nonane | 111-84-2 | 0.1-1.0 | |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.1-1.0 | |

## SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**

Remove source of exposure or move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

**Skin Contact**

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation occurs, get medical advice or attention.

**Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice or attention.

**Ingestion**

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Drink two glasses of water. Immediately call a Poison Centre or doctor.

## SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder or appropriate foam.

**Unsuitable Extinguishing Media**

DO NOT use water or water-based extinguishing agents.

**Specific Hazards Arising from the Product**

Very toxic carbon monoxide, carbon dioxide. and other unidentified organic compounds.

**Special Protective Equipment and Precautions for Fire-fighters**

No special precautions are necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Use the personal protective equipment recommended in Section 8 of this safety data sheet. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Remove or isolate incompatible materials as well as other hazardous materials.

**Environmental Precautions**

If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Do not allow into any sewer, on the ground or into any waterway.

**Methods and Materials for Containment and Cleaning Up**

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

## SECTION 7. HANDLING AND STORAGE

**Precautions for Safe Handling**

Only use where there is adequate ventilation. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Do not weld, cut or perform hot work on empty container until all traces of product have been removed. It is good practice to: avoid breathing product; avoid skin and eye contact and

wash hands after handling. Keep away from clothing and other combustible materials.

**Conditions for Safe Storage**

Store in an area that is: cool, well-ventilated, out of direct sunlight and away from heat and ignition sources. Store in a closed container. Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters**

| | ACGIH® TLV® | | OSHA PEL | |
|---|---|---|---|---|
| **Chemical Name** | **TWA** | **STEL [C]** | **TWA** | **Ceiling** |
| n-Nonane | 200 ppm | Not established | Not established | Not established |
| Stoddard solvent | 100 ppm | Not established | Not established | Not established |
| 1,2,4-Trimethylbenzene | 25 ppm | Not established | Not established | Not established |

**Appropriate Engineering Controls**

Sufficient mechanical ventilation to maintain exposures below the TLV. Under normal conditions of use, general ventilation should be satisfactory. Local ventilation is recommended if the product is misted or used in a confined space or if the TLV is exceeded. Make up air should always be supplied to balance air exhausted. Provide eyewash in work area, if contact or splash hazard exists.

**Individual Protection Measures**

**Eye/Face Protection**

Safety glasses with side shields.

**Skin Protection**

Not required, if used as directed.
Suitable materials are: neoprene rubber, nitrile rubber.

**Respiratory Protection**

Not normally required if product is used as directed.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

| | |
|---|---|
| **Appearance** | Clear yellow liquid. |
| **Odour** | Hydrocarbon |
| **Odour Threshold** | Not available |
| **pH** | Not applicable |
| **Melting Point/Freezing Point** | Not available (melting); Not available (freezing) |
| **Initial Boiling Point/Range** | Not available |
| **Flash Point** | > 65 ºC |
| **Evaporation Rate** | Not available |
| **Flammability (solid, gas)** | Not applicable (liquid). |
| **Upper/Lower Flammability or Explosive Limit** | Not available (upper); Not available (lower) |
| **Vapour Pressure** | Not available |
| **Vapour Density (air = 1)** | > 1 |
| **Relative Density (water = 1)** | 0.849 at 15 ºC |
| **Solubility** | Negligible in water |
| **Partition Coefficient, n-Octanol/Water (Log Kow)** | Not available |
| **Auto-ignition Temperature** | Not available |

| | |
|---|---|
| **Viscosity** | 1.23 centistokes at 40°C (kinematic) |

**Other Information**

| | |
|---|---|
| **VOC %** | Not available |
| **Flame projection** | Not applicable |
| **NFPA Classification** | Combustible liquid, class IIIA |

## SECTION 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions of use.

**Chemical Stability**

Normally stable.

**Possibility of Hazardous Reactions**

None expected under normal conditions of storage and use.

**Conditions to Avoid**

Open flames, sparks, static discharge, heat and other ignition sources. High temperatures.

**Incompatible Materials**

Strong oxidizing agents (e.g. perchloric acid).

**Hazardous Decomposition Products**

Very toxic carbon monoxide, carbon dioxide. and other unidentified organic compounds.

## SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

**Likely Routes of Exposure**

Skin contact.
Eye contact.
Ingestion.

**Acute Toxicity**

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|---|---|---|---|
| n-Nonane | 3200 ppm (rat) (4-hour exposure) | > 15000 mg/kg (rat) | Not available |
| Stoddard solvent | > 5500 mg/m3 (rat) (4-hour exposure) | > 5000 mg/kg (rat) | > 3000 mg/kg (rabbit) |
| 1,2,4-Trimethylbenzene | 18000 mg/m3 (rat) (4-hour exposure) | 5000 mg/kg (rat) | Not available |

95% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (inhalation)

95% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (oral)

95% of the mixture consists of an ingredient or ingredients of unknown acute toxicity (dermal)

**Skin Corrosion/Irritation**

There is limited evidence of very mild irritation.

**Serious Eye Damage/Irritation**

There is limited evidence of very mild irritation.

**STOT (Specific Target Organ Toxicity) - Single Exposure**

**Inhalation**

At high concentrations may cause nose and throat irritation, depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion.

**Skin Absorption**

No information was located.

**Ingestion**

If large amounts are swallowed may cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

**Aspiration Hazard**

May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

No information was located.

**Respiratory and/or Skin Sensitization**

No information was located for respiratory sensitization.
No information was located for skin sensitization.

**Carcinogenicity**

Not a carcinogen.

No information was located for: Development of Offspring, Sexual Function and Fertility, Effects on or via Lactation, Germ Cell Mutagenicity, Interactive Effects

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS.
This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal Methods**

The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container. Dispose of contents and container in accordance with local, regional, national and international regulations.

## SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

**Special Precautions** Not applicable

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

Not applicable

**Other Information** Not regulated under IMDG Code.

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

**Canada**

**Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All ingredients are listed on the DSL/NDSL.

**CEPA - National Pollutant Release Inventory (NPRI)**

(Xylene (mixed isomers)) Part 1A.
(Stoddard solvent) Part 5.
(1,2,4-Trimethylbenzene) Part 1A.

**USA**

**Toxic Substances Control Act (TSCA) Section 8(b)**

All ingredients are listed on the TSCA Inventory.

**Additional USA Regulatory Lists**

CERCLA. (Xylene (mixed isomers))
SARA Title III - Section 302: Not applicable.
SARA Title III - Section 313. (Xylene (mixed isomers)). (1,2,4-Trimethylbenzene)
California Proposition 65: Not applicable.
Massachusetts Right To Know: Not applicable.
New Jersey Right To Know. (n-Nonane). (Xylene (mixed isomers)). (Stoddard solvent). (1,2,4-Trimethylbenzene)
Pennsylvania Right To Know. (n-Nonane). (Xylene (mixed isomers)). (Stoddard solvent). (1,2,4-Trimethylbenzene)

## SECTION 16. OTHER INFORMATION

| | |
|---|---|
| **NFPA Rating** | **Health - 1 Flammability - 1 Instability - 0** |
| **SDS Prepared By** | Regulatory Compliance |
| **Phone No.** | 800.201.9486 |
| **Date of Preparation** | March 11, 2016 |
| **Key to Abbreviations** | ACGIH® = American Conference of Governmental Hygienists<br>CANUTEC = Canadian Transport Emergency Centre<br>CAS = Chemical Abstract Service<br>CCOHS = Canadian Centre for Occupational Health & Safety<br>CNS = Central nervous system<br>GESTIS = GESTIS Substance Database<br>HSDB® = Hazardous Substances Data Bank<br>IARC = International Agency for Research on Cancer<br>ICAO = International Civil Aviation Organization<br>IMDG = International Maritime Dangerous Goods Code<br>LC = Lethal concentration<br>LC = Lethal dose<br>NFPA = National Fire Protection Association<br>NTP = National Toxicology Program<br>OSHA = US Occupational Safety and Health Administration<br>PPM = Parts per million<br>RTECS® = Registry of Toxic Effects of Chemical Substances<br>STEL = Short term exposure limit<br>TDG = Transportation of Dangerous Goods Regulations (Canada)<br>TWA = Time weighted average |
| **References** | Material safety data sheet from manufacturer.<br>CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).<br>HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).<br>Registry of Toxic Effects of Chemical Substances (RTECS®) database. Accelrys, Inc. Available from Canadian Centre for Occupational Health and Safety (CCOHS).<br>ECHA - European Chemical Agency, Classification and Labelling Inventory<br>GESTIS Substance Database<br>OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2015. |
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