



SAFETY DATA SHEET

Issue Date 01-31-2018

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Version 3

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name: FUEL-INJECTOR CLEANER

Other means of identification

Common Name: 0106
UN/ID No NA1993 (Domestic)
Synonyms None
Product Categories Petroleum based cleaner

Recommended use of the chemical and restrictions on use

Sale and Use Restrictions Not applicable
Recommended Use Restricted to professional users.
Uses advised against Consumer use

Details of the supplier of the safety data sheet

Supplier Address
MOC PRODUCTS CO., INC.
12306 Montague Street
Pacoima, CA 91331

Emergency telephone number

Company Phone Number MOC PRODUCTS CO., INC. (818) 794-3500
Emergency Telephone CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Vapors)	Category 3
Germ cell mutagenicity	Sub-category 1B
Carcinogenicity	Category 2
Aspiration toxicity	Category 1
Flammable liquids	Category 4

Label elements

Emergency Overview

Danger

Hazard statements

Toxic if inhaled
 May cause genetic defects
 Suspected of causing cancer
 May be fatal if swallowed and enters airways
 Combustible liquid



Appearance Mobile

Physical state Liquid

Odor Solvent

Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep cool

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 Specific treatment (see response statements below and Section 4 of the Safety Data Sheet)

IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CONTROL CENTER or doctor/physician
 IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician
 Do not induce vomiting
 In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed
 Store in a dry place

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other information

- May be harmful in contact with skin
 - Harmful to aquatic life with long lasting effects
- 2.93 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %	Trade Secret
Hydrotreated Light Petroleum Distillates	64742-47-8	90-100	*
Light Aromatic Solvent Naphtha	64742-95-6	1-10	*
Polyolefin Alkyl Phenol Alkyl Amine	PROPRIETARY	1-5	*
1,2,4-Trimethylbenzene	95-63-6	0.1-0.9	*
Cumene	98-82-8	0.1-0.3	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures**

Skin contact	Immediately flush skin with plenty of water for at least 15 (30 or 60) minutes. Remove contaminated clothing and shoes. Thoroughly clean shoes before reuse. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a physician or Poison Control Center.
Eye contact	Immediately flush eyes for at least 15 minutes. Get medical attention.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Notes to Physician	Aspiration hazard if swallowed - can enter lungs and cause damage.
Most important symptoms and effects, both acute and delayed	
Symptoms	Drowsiness, Dizziness, Nausea, Vomiting, Coughing and/ or wheezing; Eye irritation, Skin irritation.
Indication of any immediate medical attention and special treatment needed	
Self-protection of the first aider	It may be dangerous to the person providing first aid to give mouth-to-mouth resuscitation.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media:**

Dry chemical, Carbon dioxide (CO₂), Foam, Water fog.

Small Fire Dry chemical or CO₂.

Large Fire Water spray or fog, Foam.

Explosive properties: Risk of explosion if heated under confinement. May form explosive mixtures in presence of oxidizing substances (gas/dust).

Specific hazards arising from the chemical

COMBUSTIBLE MATERIAL: May be ignited by heat, sparks or flames. Keep product and empty container away from heat and sources of ignition. Vapors may travel to source of ignition and flash back.

Hazardous combustion products Aldehydes, Hydrocarbons, Carbon dioxide (CO₂), Carbon monoxide, Nitrogen oxides (NO_x).

Specific methods:

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge May be ignited by heat, sparks or flames.

Special firefighting procedures:

Combustible liquid. Keep away from heat, sparks and flame. No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to keep fire-exposed containers cool. Do not use water jet. Move containers from fire area if you can do it without risk. Water may cause frothing of heated materials. Dike to collect large liquid spills.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Ensure adequate ventilation. Use personal protective equipment. See Section 8 for information on appropriate personal protective equipment.

For emergency responders Use personal protection recommended in Section 8. Ventilate the area. Remove all sources of ignition. Pay attention to flashback. Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction.

Environmental precautions

Environmental precautions: Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for Containment Remove all sources of ignition. Ventilate the area. Stop leak if you can do it without risk. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

Methods for clean-up: Clean-up methods - small spillage: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Large spills present a vapor explosion and liquid fire hazard; evacuate area and ensure response by personnel trained and equipped to respond to flammable material incident or off-site emergency responders or fire department.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling: Protect from physical damage. Do not store at temperatures above 120°F (50°C). Avoid breathing vapors or mists. Keep product and empty container away from heat and sources of ignition. Take precautionary measures against static discharge. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose these containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Keep containers tightly closed in a cool, well-ventilated place. Empty containers retain product residue and can be hazardous.

Conditions for safe storage, including any incompatibilities

Technical measures/precautions: Mechanical ventilation required if used indoors on a continuous basis. Eye wash and safety shower should be easily accessible.

Materials to avoid: Chlorine, Strong oxidizing agents, Strong acids, Alkalis.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA Exposure Limits:	NIOSH IDLH
Hydrotreated Light Petroleum Distillates 64742-47-8	TWA: 200 ppm	TWA: 500 ppm	-
Light Aromatic Solvent Naphtha 64742-95-6	-	TWA: 100 ppm	-
Polyolefin Alkyl Phenol Alkyl Amine PROPRIETARY	-	Not established	-
1,2,4-Trimethylbenzene 95-63-6	TWA: 25 ppm	Not established	TWA: 25 ppm TWA: 125 mg/m ³
Cumene 98-82-8	TWA: 50 ppm	TWA: 50 ppm TWA: 245 mg/m ³	IDLH: 900 ppm TWA: 50 ppm TWA: 245 mg/m ³

Appropriate engineering controls

Engineering measures: Mechanical ventilation required if used indoors on a continuous basis. Eye wash and safety shower should be easily accessible.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear normal work clothing. Wear chemical resistant gloves (consult your safety equipment supplier). Additional body garments should be used based on task being performed: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. (consult with the specific manufacturer to confirm performance).

Respiratory protection Ensure adequate ventilation. General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Use personal protective equipment as required. Avoid contact with skin and clothing. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Solvent
Appearance	Mobile	Odor threshold	No information available
Color	Light brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	N/A	Not applicable
Melting point/freezing point	No information available	
Boiling point / boiling range	> 217 °C / 422 °F	(based on components)
Flash point	89 °C / 192 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	Slower than ether	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limit	No Data Available	
Lower flammability limit	No Data Available	
Vapor pressure	No Data Available	
Vapor density	Heavier than air	
Specific Gravity	0.80	
Water solubility	Insoluble in water	
Solubility in other solvents	No Data Available	
Partition coefficient	No Data Available	
Autoignition temperature	No Data Available	
Decomposition temperature	No Data Available	
Kinematic viscosity	No information available	
Dynamic viscosity	No Data Available	
Explosive properties	No Data Available	
Oxidizing properties	No Data Available	

Other information

Softening point	No Data Available
Molecular weight	No Data Available
VOC Content (%)	
VOC Content (%)	1.4
	Contains a VOC exempt solvent
Density	0.80 g/cc
Bulk density	No Data Available

10. STABILITY AND REACTIVITY

Reactivity

Reactivity Stable.

Chemical stability

Possibility of Hazardous Reactions May react with oxidizing agents.
Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Materials to avoid: Chlorine, Strong oxidizing agents, Strong acids, Alkalis.

Hazardous Decomposition Products

Hazardous Decomposition Products Aldehydes, Hydrocarbons, Carbon dioxide (CO₂), Carbon monoxide, Nitrogen oxides (NO_x).

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Toxic by inhalation. May be fatal if swallowed and enters airways. May be harmful in contact with skin.
Inhalation	Toxic by inhalation. Causes respiratory tract irritation. Aspiration into lungs can produce severe lung damage.
Eye contact	May cause irritation: redness, stinging and tearing.
Skin Contact	May be harmful in contact with skin: Repeated exposure may cause skin dryness or cracking. May cause burns.
Ingestion	May be fatal if swallowed and enters airways: Aspiration may cause pulmonary edema and pneumonitis.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrotreated Light Petroleum Distillates 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h
Light Aromatic Solvent Naphtha 64742-95-6	-	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h, = 3400 ppm (Rat) 4 h
Polyolefin Alkyl Phenol Alkyl Amine PROPRIETARY	>10000 mg/kg (Rat)	>10000 mg/kg (Rabbit)	=19171 mg/m ³ (Rat) 4 h
1,2,4-Trimethylbenzene 95-63-6	= 3280 mg/kg (Rat) = 8970 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	= 18 g/m ³ (Rat) 4 h
Cumene 98-82-8	= 1400 mg/kg (Rat)	= 12300 µL/kg (Rabbit)	> 3577 ppm (Rat) 6 h

Information on toxicological effects

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic effects:	Is classified by the European Union as a mutagen of category 1B. Substances which should be regarded as being mutagenic to man.
Carcinogenicity	Category 2: Substances that cause cancer in animals, and are considered to cause cancer in man:

Chemical Name	ACGIH	IARC	NTP	OSHA
Cumene 98-82-8		Group 2B	Reasonably Anticipated	

Reproductive toxicity	In the presence of slight maternal toxicity, fetotoxic effects have been observed in the offspring of rats exposed by inhalation.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Chronic toxicity	Prolonged skin contact may defat the skin and produce dermatitis. Possibly Carcinogenic.
Subchronic toxicity	No information available.
Target Organ Effects	Kidney, Liver, Spleen, Adrenal gland, Thymus, Central nervous system.
Neurological effects	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Other adverse effects	Auditory system: prolonged and repeated exposure to high concentrations have resulted in hearing losses in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. This product contains trimethylbenzene. Literature data indicate that long-term inhalation exposure causes blood effects in laboratory animals.
Aspiration hazard	May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	2.93 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	5236 mg/kg
ATEmix (dermal)	2037 mg/kg

ATEmix (inhalation-vapor) 5.4 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Chronic Aquatic Toxicity: Harmful to aquatic life with long lasting effects.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrotreated Light Petroleum Distillates 64742-47-8		45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static 2.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
Light Aromatic Solvent Naphtha 64742-95-6		9.22: 96 h Oncorhynchus mykiss mg/L LC50		6.14: 48 h Daphnia magna mg/L EC50
1,2,4-Trimethylbenzene 95-63-6		7.19 - 8.28: 96 h Pimephales promelas mg/L LC50 flow-through 7.72: 96 h Pimephales promelas mg/L LC50 flow-through		6.14: 48 h Daphnia magna mg/L EC50
Cumene 98-82-8	2.6: 72 h Pseudokirchneriella subcapitata mg/L EC50	6.04 - 6.61: 96 h Pimephales promelas mg/L LC50 flow-through 4.8: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 2.7: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 5.1: 96 h Poecilia reticulata mg/L LC50 semi-static		0.6: 48 h Daphnia magna mg/L EC50 7.9 - 14.1: 48 h Daphnia magna mg/L EC50 Static

Persistence and degradability

This product contains components which may be persistent in the environment.

Bioaccumulation

Bioaccumulative potential.

Mobility

The product is insoluble and floats on water.

Chemical Name	Partition coefficient
Cumene 98-82-8	3.55

13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes**

Dispose of in accordance with federal, state and local regulations.

Contaminated packaging

Do not reuse container. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Limited quantity (LQ) < 5 Liters

DOT

UN/ID No NA1993
Proper Shipping Name: Combustible liquid, n.o.s. (Petroleum Distillates)
Hazard Class COMB. LIQ.
Packing Group: III
Emergency Response Guide Number 128

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations

SARA 313

No SARA 313 chemicals are present above the reporting threshold:

Chemical Name	CAS Number	Weight %	SARA 313 - Threshold Values %
1,2,4-Trimethylbenzene 95-63-6	95-63-6	0.1-0.9	1.0% de minimus concentration
Cumene 98-82-8	98-82-8	0.1-0.3	1.0% de minimus concentration

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Cumene 98-82-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

State Regulations (RTK)

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm:

Chemical Name	CAS Number	California Proposition 65
Cumene	98-82-8	Carcinogen
Naphthalene	91-20-3	Carcinogen
Ethylbenzene	100-41-4	Carcinogen
Benzene	71-43-2	Carcinogen Developmental Male Reproductive
Toluene	108-88-3	Developmental
Furan	110-00-9	Carcinogen
Acetaldehyde	75-07-0	Carcinogen
Propylene oxide	75-56-9	Carcinogen

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION**NFPA Rating**

Health hazards 2

Flammability 2

Instability 0

Physical and Chemical Properties -

HMIS Rating

Health hazards 2*

Flammability 2

Physical hazards 0

Personal protection B

*Chronic Hazard Star Legend*** = Chronic Health Hazard***Prepared by**

Environmental Health and Safety Department

Issue Date

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Revision Note

This data sheet contains changes from the previous version in section(s): 1, 3, 4, 15.

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet