



Fuel Injector Cleaner

MSDS Number: FIC

Revision Date: 09/23/10

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1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Fuel Injector Cleaner
Revision Date: 09/23/10
MSDS Number: FIC
Product Code: 16-FIC

Manufacturer: The Blaster Corporation
8500 Sweet Valley Drive
Valley View, Ohio 44125

(216) 901-5800
(216) 901-5801 fax
www.blasterproducts.com

24 Hour emergency contact: Chemtrec (800) 424-9300

2 COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | CAS # | Percent | Exposure Limits |
|-----------------|---------|---------|----------------------------------------------------|
| Isopropanol | 67-63-0 | 12% | OSHA (TWA)- 400 ppm ACGIH (TWA)- 400 ppm |
| Mineral spirits | | >85% | ACGIH TWA- 100 ppm 8 hr. OSHA TWA- 500 ppm 8 hr |

Mineral spirits may be composed, in whole or in part, of any of the following refinery streams:

Light hydrotreated distillate (petroleum) [CAS No.: 64742-47-8]
Heavy hydrotreated naphtha (petroleum) [CAS No.: 64742-48-9]
Petroleum hydrocarbon distillates [CAS No.: 8052-41-3]
Nonane, all isomers Mixture. ACGIH TWA- 200 ppm 8 hr.
Medium Aliphatic 64742-88-7 OSHA TWA- 100 ppm
Solvent Naphtha
Hydrotreated Light Distillate 64742-47-8 OSHA TWA-100ppm

3 HAZARDS IDENTIFICATION

Route of Entry: Eyes, skin, inhalation, ingestion
Target Organs: May cause damage to the following organs: kidneys, lungs, the nervous system, liver, mucous membranes, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea
Inhalation: Breathing high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression with symptoms including nausea, headache, dizziness, fatigue, drowsiness, or unconsciousness. Breathing high concentrations of this material, for example, in an enclosed space or by intentional abuse, can



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- cause irregular heartbeats which can cause death.
- Skin Contact:** This product can cause mild, transient skin irritation with short-term exposure. The severity of irritation will depend on the amount of material that is applied to the skin and the speed and thoroughness that it is removed. Symptoms include redness, itching, and burning of the skin. Repeated or prolonged skin contact can produce moderate irritation (dermatitis).
- Eye Contact:** This product can cause transient mild eye irritation with short-term contact with liquid sprays or mists. Symptoms include stinging, watering, redness, and swelling.
- Ingestion:** If swallowed, this material may irritate the mucous membranes of the mouth, throat, and esophagus. It can be readily absorbed by the stomach and intestinal tract. Symptoms include a burning sensation of the mouth and esophagus, nausea, vomiting, dizziness, staggering gait, drowsiness, loss of consciousness, and delirium, as well as additional central nervous system (CNS) effects. Due to its light viscosity, there is a danger of aspiration into the lungs during vomiting. Aspiration can result in severe lung damage or death.

Conditions Aggravated by Exposure

Disorders of the following organs or organ systems that may be aggravated by significant exposure to this material or its components include: Skin, Respiratory System, Liver, Kidneys, Central Nervous System (CNS)

Chronic Health Effects Summary

Chronic effects of ingestion and subsequent aspiration into the lungs may cause pneumatocele (lung cavity) formation and chronic lung dysfunction. Reports have associated repeated and prolonged occupational overexposure to solvents with irreversible brain and nervous system damage (sometimes referred to as "Solvent or Painter's Syndrome"). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

Physical Hazards/Precautionary Measures: Extremely flammable liquid and vapor. Vapor can cause flash fire. Keep away from heat, sparks, flames, static electricity or other sources of ignition.

4 FIRST AID MEASURES

- Inhalation:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.
- Skin Contact:** Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists.
- Eye Contact:** Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and remove contact lenses. If contact lenses cannot be removed, seek immediate medical attention. Do not use eye ointment. Seek medical attention.
- Ingestion:** Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.

Notes to Physician:

INHALATION: Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract



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inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required. This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

INGESTION: If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.

5 FIRE FIGHTING MEASURES

Flash Point: 71 F (TCC) lowest component

Flammable limits in air, % by volume:

Upper: No Information

Lower: No Information

Extinguishing Media:

Dry chemical, carbon dioxide, halon, or foam is recommended. Water spray may be used to cool containers or structures. Halon may decompose into toxic materials and carbon dioxide will displace oxygen, take proper precautions when using these materials.

Unusual Fire & Explosion Hazards:

This material may be ignited by heat, sparks, flames or other ignition sources (static electricity). Vapors are heavier than air and will collect in low areas (sewers) or travel considerable distances. If containers are not cooled in a fire, they may rupture and ignite.

Special Fire Fighting Procedures:

Emergency responders should wear self-contained breathing apparatus. Wear other protective gear as conditions warrant. Keep unauthorized people out and try to contain spills or leaks if it can be done safely. Material will float on water, avoid spreading the fire.

6 ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedure: In case of spill or release, avoid vapors and ignition sources. Use appropriate protective equipment. Clean up small spills by using a nonflammable absorbent. Keep out of drains and waterways. Handle with trained personnel only. Notify authorities as required by law.

Waste Disposal Method: Bottle and contents can then be recycled. Dispose of in accordance with local, state and federal regulations.



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7 HANDLING AND STORAGE

Handling Precautions: Use with adequate ventilation. Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Decontaminate soiled clothing thoroughly before re-use. Destroy contaminated leather clothing.

Empty containers may contain residues from the product. Treat empty containers with the same precautions as the material.

Storage Requirements: Store in a dry place away from excessive heat. Store containers with lids on and properly labeled.

Do not store at temperatures above 120 degrees F.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Eye wash stations and emergency showers should be immediately available.

Protective Equipment: Eyes and Face: Standard safety glasses with splash shields typically offer adequate protection. Where excessive splashing or spraying is possible, a face shield should be used.

Skin and clothing: Excessive contact should be avoided. Neoprene gloves, boots and aprons will provide adequate protection when contact cannot be avoided. Remove and wash any contaminated clothing immediately. Wash thoroughly after handling.

Respiratory: Good general ventilation should be sufficient to control airborne levels. Maintain airborne concentrations below OSHA established exposure limits of ingredients in Section 2.

Exposure Guidelines/Other: The Blaster Corporation takes no responsibility for determining what measures are required for personal protection in any specific application. This information should be used with discretion.

9 PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------|----------------|------------------------------|----------------|
| Appearance: | Clear Red | Boiling Point: | 76 C |
| Physical State: | Liquid | Freezing/Melting Pt.: | Not determined |
| Odor: | aromatic | Solubility: | slight |
| pH: | Not determined | Spec Grav./Density: | 0.815 |
| Vapor Pressure: | Not determined | | |
| Vapor Density: | >1 (air = 1) | | |

| | |
|--------------------------|----------------|
| Heat Value: | Not determined |
| VOC: | not determined |
| Evap. Rate: | >1 (NBA = 1) |
| Bulk Density: | Not determined |
| Octanol: | Not applicable |
| Molecular Weight: | Not determined |
| Particle Size: | Not applicable |



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| Softening Point: | Not applicable |
| Viscosity: | Not determined |
| Percent Volatile: | not determined |
| Sat. Vap. Concentrat.: | Not determined |
| Molecular Formula: | Not determined |

10 STABILITY AND REACTIVITY

| | |
|----------------------------------------------|-----------------------------------------------------------------------|
| Stability: | This product is stable. |
| Conditions to avoid: | Avoid excessive heat, sources of ignition and excessive water. |
| Materials to avoid (incompatibility): | Avoid contact with strong oxidizing agents. Avoid mixture with water. |
| Hazardous Decomposition products: | Carbon monoxide, carbon dioxide, and nitrogen-oxygen compounds . |
| Hazardous Polymerization: | Will not occur. |

11 TOXICOLOGICAL INFORMATION

MINERAL SPIRITS

Light hydrotreated distillate (petroleum):

Studies on laboratory animals have shown similar materials to cause eye and respiratory tract irritation. Studies of similar materials on laboratory animals have resulted in skin irritation after repeated or prolonged contact. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and rash (dermatitis).

Petroleum hydrocarbon distillates:

Dermal, Acute LD₅₀ (rabbit): >3000 mg/kg

Inhalation, Acute LC₅₀ (rat): >5.5 mg/l (8 hours)

Studies on laboratory animals have associated similar materials with eye and respiratory tract irritation. Studies on laboratory animals have shown similar materials to cause skin irritation after repeated or prolonged contact. Repeated direct application of Stoddard Solvent to the skin can produce defatting dermatitis and kidney damage in laboratory animals. Rats developed kidney damage and elevated blood urea nitrogen levels when exposed to a concentration of 1.9 mg/L for 65 days. The kidney damage occurred only in male rats and appeared to involve both the tubules and glomeruli. The significance of these animal study results to human health is unclear.

ISOPROPANOL

LD/50

5000 MG/KG RAT ORAL

3600 MG/KG MOUSE ORAL

6410 MG/KG RABBIT ORAL

12,800 MG/KG RABBIT DERMAL

LC/50

53,000 MG/M3 MOUSE INHALATION

72,600 MG/M3 RAT INHALATION

16,000 PPM/8H RAT INHALATION



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12 ECOLOGICAL INFORMATION

MINERAL SPIRITS

Ecotoxicity

This mixture contains components that are potentially toxic to freshwater and saltwater ecosystems.

Environmental Fate

This product will normally float on water. Components will evaporate rapidly. This material may be harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment. The log Kow value for this product is expected to be in the range of 3.3 to 6.

ISOPROPANOL

Aquatic toxicity

Low toxicity to aquatic organisms such as bacteria, algae, protozoa and fish.

LC50 (Leuciscus idus melanotus) 48 hours > 100

LC50 (Brown shrimp) 96 hours 467,923 mg/l

EC50 (Brine shrimp) 48 hours > 100 mg/l

EC50 (S. subspicatus (algae)): 72 hours > 100 mg/l

Biodegradation

Readily biodegradable.

13 DISPOSAL CONSIDERATIONS

Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

14 TRANSPORT INFORMATION

Dept. of Transportation (DOT):

This product, as it leaves Blaster's facilities, meets the definitions set forth in CFR 49 part 173.150c as a "consumer commodity." Allowing for certain exceptions (173.156) for domestic surface (ground) shipments.

Proper shipping name: Consumer Commodity

Hazard class: ORM-D

International (IMDT-IATA):

Proper shipping name: Flammable liquid n.o.s. (naphtha), Limited Quantities

Hazard class: 3

Packing Group: I

UN Number: 1993



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15 REGULATORY INFORMATION

SARA 311:

Acute health: Yes
Chronic health: Yes
Fire: Yes
Reactive: No
Sudden release of pressure: No

This product is not known to contain any SARA, Title III, Section 313 Reportable Chemicals at or greater than 1.0% (0.1% for carcinogens.)

16 OTHER INFORMATION

Manufacturer's Disclaimer:

To the best of our knowledge, the information contained herein is accurate. However, neither The Blaster Corporation nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard which exists.

HMIS Ratings:

Health: 1
Fire: 3
Reactivity: 0

NFPA Ratings:

Health: 1
Fire: 3
Reactivity: 0

END OF MSDS DOCUMENT