# Red Alert eh1
# Material Safety Data Sheet

## 1 Company Identification


Innospec Fuel Specialties
8375 S. Willow Street
Littleton, CO 80124

Product information 1-800-441-9547
In Case of Emergency
Call Chemtrec 1-800-424-9300


## 2 Composition / Ingredient Information

| Material | CAS Number | % |
|---|---|---|
| Proprietary Ingredients | | 1-20 |
| Isopropanol | 67-63-0 | 30-50 |
| 2-Ethylhexanol | 104-76-7 | <10 |
| Light Ends of Polyethylbenzene Residue | 178535-25-6 | 50-70 |
| (Triethylbenzene) | 102-25-0 | (10-15) |
| *(Naphthalene) | 91-20-3 | (<3) |

*Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

## 3 Hazardous Identification

### Potential Health Effects

Eye contact with the product ingredients may cause eye irritation with discomfort, tearing, or blurring of vision. Direct exposure may cause skin irritation (redness, swelling). A single prolonged exposure may result in the material being absorbed through the skin in harmful amounts.

In general, overexposure to high atmospheric concentrations of alkyl-substituted aromatics may produce central nervous system depression, headache, dizziness, incoordination, nausea and loss of appetite. Aspiration (liquid enters the lung), may cause lung damage due to chemical pneumonia, a condition caused by petroleum-like solvents.

Minute amounts of petroleum hydrocarbons aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possible death.

Individuals with preexisting diseases of the kidneys or liver may have increased susceptibility to the toxicity of excessive exposures.

Overexposure by inhalation to Isopropanol may include irritation of the upper respiratory passages, with coughing and discomfort. Ingestion can cause nausea, vomiting, abdominal pain and loss of consciousness. Inhalation, ingestion, or skin contact may initially include nonspecific discomfort, such as nausea, headache, and abdominal pain, flushing of the face, hypotension, or weakness. Higher

exposures to Isopropanol may lead to temporary nervous system depression with anesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness or fatality from gross overexposure. There are rare inconclusive reports of human sensitization to Isopropanol.

### Carcinogenicity Information

Naphthalene has been classified by the Internal Agency for Research on Cancer (IARC) as possibly carcinogenic to humans (Group 2B). This IARC classification was based upon limited evidence of carcinogenicity to animals and inadequate evidence of carcinogenicity to humans.

## 4 First Aid Measures

### Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

### Skin Contact
Flush skin with water after contact. Wash contaminated clothing before reuse.

### Eye Contact
In case of contact immediately, flush eyes with plenty of water for at least 15 minutes. Call a physician.

### Ingestion
If swallowed, do not induce vomiting. Allow victim to rinse his mouth and then to drink 2-4 cupfuls of water. Never give anything by mouth to an unconscious person. Call a physician.

### Notes to Physicians
Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400-ml water and mix thoroughly. Administer 5 ml/kg or 350 ml for an average adult.

Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk is justified by the presence of additional toxic substances. Activated charcoal may induce vomiting, but may be given after emesis or lavage to absorb toxic additives. Steroid therapy in mild to moderate cases does not improve outcome. Bacterial pneumonia often occurs after exposure, but prophylactic antibiotics are not indicated and should be reserved for documented bacterial pneumonia.

## 5 Fire Fighting Measures

### Flammable Properties
Flash Point..... 58°F (14°C)
Method..... PMCC
Flammable Liquid

### Extinguishing Media
Water Spray, Foam, Dry Chemical, $CO_2$.

### Fire Fighting Instructions
Wear self-contained breathing apparatus. Wear full protective equipment.

## 6 Accidental Release Measures

Note: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) SECTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Soak up with sawdust, sand, oil dry or other absorbent material. Remove source of heat, sparks, flame, impact, friction, or electricity. Dike spill. Prevent material from entering sewers, waterways, or low areas.

### Spill Clean-Up
Soak up with sawdust, sand, oil dry or other absorbent material.

### Accidental Release Measures
Spills are very slippery and should be cleaned up promptly. Unless released material is cleaned up immediately for reprocessing, recycling, or reuse, a release of 100 lbs. may trigger the reporting requirements of CERCLA Section 103.

## 7 Handling and Storage

### Handling (Personnel)
Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling.

### Handling (Physical Aspects)
Keep away from heat, sparks and flames.

### Storage
Store in a well-ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations.

## 8 Exposure Controls

### Engineering Controls
Use only with adequate ventilation. Keep container tightly closed.

### Personal Protective Equipment

#### Eye/Face Protection
Wear coverall chemical splash goggles or safety glasses.

#### Respirators
Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

#### Protective Clothing
Where there is potential for skin contact have available and wear as appropriate Impervious gloves, apron, pants, hood and jacket.

### Exposure Limits

**Isopropanol:**

PEL (OSHA) ..... 400 ppm, 980 mg/$m^3$, 8 hr, TWA
TLV (ACGIH) ..... 200 ppm, 8 hr, TWA
STEL 400 ppm, A4,
AEL* (Octel Starreon) ..... 400 ppm, 8 & 12 hr., TWA

**2-Ethylhexanol:**

PEL (OSHA) ..... None established
TLV (ACGIH) ..... None established
AEL* (Innospec Fuel Specialties) ..... 20 ppm, 8 hr, TWA

**Naphthalene:**

PEL (OSHA)..... 10 ppm, 50 mg/$m^3$, 8 hr. TWA
TLV (ACGIH)..... 10 ppm, 52 mg/$m^3$, 8 hr TWA, Skin; A4
STEL 15 ppm, 79 mg/$m^3$, A4
AEL* (Innospec Fuel Specialties) ..... None established

The "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposure should be considered

* AEL is Innospec Fuel Specialties' acceptable exposure limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

## 9 Physical and Chemical Properties

### Physical Data

Appearance..... Pale amber
Form..... Liquid
Odor..... Aromatic
Specific Gravity..... 0.855 @ 60/60°F (16/16°C)
Density..... 7.12 lbs./gal. @ 60°F (16°C)
Solubility in water..... 30-50 wt%

## 10 Stability and Reactivity

### Chemical Stability

Stable at normal temperatures and storage conditions.

### Incompatibility

None reasonably foreseeable.

### Decomposition

Will not occur.

### Polymerization

Will not occur.

# 11 Toxicological Information

## Animal Data

### Isopropanol:

Inhalation 4 hours LC50..... 16,000 ppm in rats
Skin absorption LD50..... 16.37 ml/kg
(c.12,900 mg/kg)
Oral LD50..... 4,700 mg/kg in rats

### Naphthalene:

Inhalation 15 minute LC50:..... >0.34 mg/L in rats
Skin Absorption LD50:..... 10,000 mg/kg in rabbits
Oral LD50:..... 1,780 mg/kg in rats

### 2-Ethylhexanol:

Inhalation 6 hour LC50..... >2,000 ppm in rats
Skin absorption LD50..... 1,970 mg/kg in rabbits
Oral LD50..... 3,730 mg/kg in rats

Isopropyl Alcohol is not a skin irritant, is a mild eye irritant, and is untested for animal sensitization. The effects in animals from single exposure by inhalation include microscopic and morphologic changes of the epithilial cells of the nose and middle ear mucosa. Repeated exposures resulted in narcosis and fatty degeneration of the liver. No lung tumors were observed in a long term inhalation exposure. Single dermal application of a 70% solution showed significant skin absorption. Repeated of the skin. Long term dermal applications of a 50% solution to the face of rats resulted in no adverse effects. Toxicity described in animals from single ingestion exposure include narcotic effects. Repeated administration of approximately 6 g/kg in rats demonstrated no effects on growth or liver weights. Long term administration of a 1% solution to rats caused effects on body weight gain and growth. Dogs administered 1300 mg/kg exhibited signs of drunkenness. No adequate animal test reports are available to define carcinogenic hazards. Continued voluntary drinking of 2.5% aqueous Isopropyl Alcohol through two successive generations of rats produced no reproductive effects. Developmental toxicity was observed only at maternally toxic dose levels.

# 12 Ecological Information

### Isopropanol

900-1100 ppm/24 hr/chub/critical range/fresh water
96 hour LC50, fathead minnows: 11,130 mg/L

# 13 Disposal Considerations

## Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations. May be a RCRA hazardous waste due to the ignitability characteristics.

## 14 Shipping Information

### DOT

Proper Shipping Name..... Flammable Liquid, n.o.s. (Isopropanol, 2-Ethylhexanol)
Hazard Class ..... 3
I.D. No. (UN/NA) ..... UN 1993
Packing Group ..... II
Special Information ..... Flash Point: 14°C
Marine Pollutant ..... No
DOT Label(s) ..... Flammable Liquid

### IMO

Proper Shipping Name..... Flammable Liquid, n.o.s. (Isopropanol, 2-Ethylhexanol)
Hazard Class ..... 3
I.D. No. (UN) ..... 1993
Packing Group ..... II
Special Information ..... Flash Point: 14°C
Marine Pollutant ..... No
IMO Label ..... Flammable Liquid

### Reportable Quantity

Naphthalene..... 100 lbs.

### Shipping Containers

Steel Drums UN1A1/Y/100

## 15 US Federal Regulations

**TSCA Inventory Status**..... **Reported / Included**

### Title III Hazard Classifications Sections 311, 312

Acute ..... Yes
Chronic ..... No
Fire ..... Yes
Reactivity ..... No
Pressure ..... No

## 16 Other Information

### NPCA-HMIS Rating

Health..... 1
Flammability..... 3
Reactivity ..... 0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

**Responsibility for MSDS:** **Ann Marie Savini**
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**Newark, DE 19702**
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**(302) 451-1362**