

Smith Science #10
Room #
106

Updated 06/25/2001



Material Safety Data Sheet

MSDS Number: 7627-7

24 Hour Emergency Assistance: CHEMTREC – Domestic: (800) 424-9300
24 Hour Emergency Assistance: CHEMTREC – International: (703) 527-3887
General Assistance Number: (713) 241-4819

226357 Part# 99062
FUEL, LIGHTER, RONSONAL 8-OZ
318 ORGILL, INC.
Buyer: Bernard W. Aubuchon Jr.

SECTION 1. MATERIAL/COMPANY IDENTIFICATION

MATERIAL IDENTITY: SHELLSOL®RB UPC 37900 – 99061, 99062, 99063
PRODUCT NAME: RONSONOL LIGHTER FUEL

COMPANY ADDRESS: Shell Chemical Company, P.O. Box 4320, Houston, TX 77210-4320, USA

SECTION 2. COMPOSITION

| COMPONENTS | CAS# | CONCENTRATION |
|--|------------|---------------|
| Solvent Naptha (Petroleum), Light Aliphatic | 64742-89-8 | 95%weight |
| Solvent Naptha (Petroleum), Medium Aliphatic | 64742-88-7 | 5%weight |

Comments:

Solvent naptha (petroleum), light aliphatic is a complex stream of predominately C5 to C10 hydrocarbons; the exact composition and concentration will vary. Solvent naptha (petroleum), medium aliphatic is a complex stream of predominately C9 to C12 hydrocarbons; the exact composition and concentrations will vary. Contains ethylbenzene 0.1 – 0.2%weight.

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance & Odor: Colorless liquid. Hydrocarbon odor.

Health Hazards: Can cause severe lung damage and may be fatal if swallowed. Causes skin irritation. May cause CNS depression.

Physical Hazards: FLAMMABLE

Health Effects

Inhalation:

Vapors may be irritating to respiratory system. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death. Prolonged and repeated exposures to high concentrations may cause hearing loss (refer to section 11). Chronic hydrocarbon abuse (for example, sniffing glue or light hydrocarbons such as contained in this material) has been associated with irregular heart rhythms and potential cardiac arrest.

Eye Contact:

May cause temporary discomfort or irritation to the eye.

Skin Contact:

Irritating to the skin causing a burning sensation, redness and/or swelling. Prolonged or repeated skin contact can cause defatting and drying of the skin which may result in a burning sensation and a dried, cracked appearance.

Ingestion:

Liquid can directly enter the lungs (aspiration) when swallowed or vomited. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs.

Primary Target Organs:

The following organs and/or organ systems may be damaged by overexposure to this material.
Heart, Kidney, Liver, Auditory System.

SECTION**4. FIRST AID MEASURES****Inhalation:**

Move victim to fresh air. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Eye:

Flush eyes with water while holding eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision or swelling persist, consult a physician.

Skin:

Removed contaminated clothing. Wipe off excess material from exposed area. Flush with large amounts of water for at least 15 minutes, by the clock, and follow by washing with soap if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Ingestion:

DO NOT induce vomiting. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. In general no treatment is necessary unless large quantities are swallowed, however, get medical advice. If the victim is coughing, choking, has shortness of breath, or difficulty breathing, transport to the nearest medical facility for additional treatment. If any of the following delayed signs and symptoms appears within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F, shortness of breath, chest congestion or continued coughing or wheezing. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Note to Physician:

Light hydrocarbons like this one have been associated with cardiac sensitization in abuse situations. Hypoxia or the injection of adrenaline-like substances enhances these effects. Refer to Section 3.

SECTION**5. FIRE FIGHTING MEASURES**

Flash Point: 42°F/5.56°C

Flammability in Air: 1-7% volume

Extinguishing Media:

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

Fire Fighting Instructions:

FLAMMABLE. Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Containers exposed to intense heat from fires should be cooled with large quantities of water to prevent weakening of container structure which could result in container rupture.

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| SECTION | 6. ACCIDENTAL RELEASE MEASURES |
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FLAMMABLE

Protection Measures:

Evacuate area of unprotected personnel. Eliminate potential sources of ignition (no smoking, flares, sparks or flames in immediate area). Handling equipment must be bonded and grounded to prevent sparking.

Wear appropriate personal protective equipment (refer to Section 8) when responding to spills.

Spill Management:

Monitor area with combustible gas indicator. Shut off source of leak if safe to do so. Dike and contain spill. If vapor cloud forms, use water fog to suppress or blanket spill area with foam. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Flush area with water to remove trace residue. Contain run-off from residue flush and dispose of properly. Prevent entry into waterways, sewer, basements or confined areas. Remove contaminated soil to remove contaminated trace residues. Dispose of in same manner as material. For small spills: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Disposal:

Proper disposal should be evaluated based on regulatory status of this material (refer to Section 13), potential contamination from subsequent use and spillage, and regulations governing disposal in the local area.

Reporting:

This material is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore, releases to the environment may not reportable under CERCLA. Notify authorities if any exposures to the general public or environment occurs or is likely to occur.

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| SECTION | 7. HANDLING AND STORAGE |
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Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated contact with eyes, skin and clothing. Wash thoroughly after handling.

Handling:

Surfaces that are sufficiently hot may ignite liquid material.

Keep away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Use explosion-proof ventilation to prevent vapor accumulation while in use. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing before reuse. Air-dry contaminated clothing in a well-ventilated area before laundering. Static electricity may accumulate and create a fire hazard. Bond and ground handling equipment and transfer containers to prevent sparking.

Storage:

Keep containers closed when not in use.

Ground fixed equipment.

Container Warnings:

Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

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| SECTION | 8. EXPOSURE CONTROLS/PERSONAL PROTECTION |
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| Exposure Controls |
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The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Appropriate measures include:

Adequate explosion-proof ventilation to control airborne concentrations.

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| Personal Protective Equipment |
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Eye Protection:

In accordance with good industrial hygiene practices, precautions should be taken to avoid eye contact.

Skin Protection:

Use protective clothing which is chemical resistant to this material. Selection of protective clothing depends on potential exposure conditions and may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Respiratory Protection:

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:

Air-Purifying Respirator for Organic Vapors, Supplied-Air Respirator, Self-Contained Breathing Apparatus (SCBA) – for use in environments with unknown concentrations or emergency situations.

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| SECTION | 9. PHYSICAL AND CHEMICAL PROPERTIES |
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Appearance & Odor: Colorless liquid. Hydrocarbon odor.

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| Boiling Point | 224-311°F | Evaporation Rate | 2.4 Estimated (vs. n-Butyl Acetate = 1) |
| Flammability in Air | 1 – 7%volume | Flash Point | 42°F (Tagliabue Closed Cup) |
| Solubility (in Water) | Negligible | Specific Gravity | 0.75 @ 60°F |
| Stability | Stable | Vapor Pressure | 47 mmHg Estimated @ 68°F |

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| SECTION | 10. REACTIVITY AND STABILITY |
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Stability:

Material is stable under normal conditions.

Conditions to Avoid:

Avoid heat, sparks, open flames and other ignition sources.

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| SECTION | 11. TOXICOLOGICAL INFORMATION |
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Acute Toxicity

| Material Tested | Effects | Test Results |
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| Solvent Naptha (Petroleum), Light Aliphatic | Inhalation – LC50 | 3400 ppm (v) (Rat) |
| Solvent Naptha (Petroleum), Light Aliphatic | Oral – No deaths* | 5840 mg/kg (Rat) |
| Solvent Naptha (Petroleum), Medium Aliphatic | Dermal – LD50 | Approximately 5 ml/kg (Rabbit) |

* No deaths at highest tested dose.

Eye Irritation:

Minimal irritation (Rabbit). Material Tested – Solvent Naptha (Petroleum), Light Aliphatic

Skin Irritation:

Moderate (Rabbit). Material Tested – Solvent Naptha (Petroleum), Medium Aliphatic

Repeat Dose Testing:

While there is no evidence that industrially acceptable levels of light hydrocarbon vapors (e.g., the occupational exposure limit) have produced cardiac effects in humans, animal studies have shown that inhalation of high levels produced cardiac sensitization. Such sensitization may cause fatal changes in heart rhythms, which was shown to be enhanced by hypoxia or the injection of adrenalin-like substances.

Carcinogenicity:

Animal data indicate that repeated dermal exposure that cause severe skin irritation may cause or promote skin cancer. Chronic inhalation exposure to 750 ppm ethyl benzene vapor produced increased incidences of renal tubular hyperplasia and neoplasms (males and females) and testicular adenomas in F344/N rats and alveolar/bronchiolar (males) and hepatocellular (females) neoplasms in B6C3F1 mice. Genetic toxicology studies found ethyl benzene not to be mutagenic or clastogenic. The relevance of these effects to humans are unclear.

Carcinogenicity Classification

| Chemical Name | NTP | IARC | ACGIH | OSHA Table Z |
|---------------|-----|------------------------------|-------|--------------|
| Ethylbenzene | | Group 2B-Possible Carcinogen | | |

Neurotoxicity:

Prolonged and repeated exposures to high concentrations of some volatile hydrocarbon solvents have resulted in hearing loss in rats. Solvent abusers and noise interaction with these solvents in the work environment may cause symptoms of hearing loss. Repeated exposures which cause acute neurological effects may also cause long-term neurological deficits in humans.

Mutagenicity:

Some effects to chromosomes but no mutagenic effects were observed in genotoxicity studies conducted for similar hydrocarbon solvent mixtures. The biological significance of the chromosomal findings is unknown.

Other Information:

Kidney effects in male rats were observed in laboratory animals exposed to a similar material. Effects were consistent with male rat hyaline droplet nephropathy which is of questionable significance to human health. Animal data suggest that slight anemia, adaptive liver changes, and kidney toxicity (male rate nephropathy) may be cause by repeated over exposure to some similar solvents. The significance of this to humans is unknown. In animals, repeat exposure to high concentrations of a similar solvent has caused a decrease in the red blood cell count.

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| SECTION | 12. ENVIRONMENTAL FATE AND EFFECTS |
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This section will be updated as ecological reviews are completed.

SECTION 13. DISPOSAL CONSIDERATIONS**Product Disposal:**

Under EPA RCRA (40 CFR 261) if this material becomes a waste material, it would be an ignitable hazardous waste, hazardous waste number D001. Refer to the latest EPA or State regulations regarding proper disposal.

SECTION 14. TRANSPORT INFORMATION**US Department of Transportation Classification:**

Proper Shipping Name: Petroleum Distillates, N.O.S.
Technical Names (S): Petroleum Naptha
Identification Number: UN1268
Hazard Class/Division: 3 (Flammable Liquid)
Packing Group: II
Oil: This material is an 'OIL' under 49 CFR Part 130 when transported in a container of 3500 gallon capacity or greater.
Emergency Response Guide # 128

International Air Transportation Association Classification:

Proper Shipping Name: Petroleum Distillates, N.O.S.
Technical Names (s): Petroleum Naptha
Identification Number: UN1268
Hazard Class/Division: 3 (Flammable Liquid)
Packing Group: II

International Maritime Organization – IMDG:

Proper Shipping Name: Petroleum Distillates, N.O.S
Technical Names (s): Petroleum Naptha
Identification Number: UN1268
Hazard Class/Division: 3 (Flammable Liquid)
Packing Group: II

SECTION 15. REGULATORY INFORMATION

The regulatory information provided is not intended to be comprehensive. Other federal, state and local regulations may apply to this material.

Federal Regulatory Status**Resource Conservation & Recovery Act (RCRA) Classification:**

D001 (Ignitable Hazardous Waste)

Superfund Amendment & Reauthorization Act (SARA) Title III:

SARA Hazard Categories (311/312):

Fire Hazard. Immediate (Acute) Health Hazard. Delayed (Chronic) Health Hazard.

Toxic Substances Control Act (TSCA) Inventory Status:

Component(s) of this material is(are) listed on the EPA TSCA Inventory of Chemical Substances.

State Regulatory Status

The following chemicals are specifically listed by individual states: other products specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

New Jersey Right-To-Know Chemical List:

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|--------------------|------------------|
| Heptane (142-82-5) | 2 – 3 % weight |
| Octane (111-65-9) | 10 – 16 % weight |

Pennsylvania Right-To-Know Chemical List:

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|------------------------------|------------------|
| Heptane (142-82-5) | 2 – 3 % weight |
| Hexane, 2-Methyl- (591-76-4) | 3 – 4 % weight |
| Hexane, 3-methyl- (589-34-4) | 3 – 5 % weight |
| Octane (111-65-9) | 10 – 16 % weight |

SECTION 16. OTHER INFORMATION

HMIS Rating (Health, Fire, Reactivity): 1, 3, 0
NFPA Rating (Health, Fire, Reactivity): 1, 3, 0

Revision#: 7

Revision Date: 04/27/2001

Revisions since last change (discussion): This MSDS has been revised because Shell Chemical Company has made changes to the Material Safety Data Sheet document template. There are no changes to the health, safety, precautionary data, or regulatory data. We do, however, encourage you to take the opportunity to reread the sheet and review the information.

Product Codes: Q6054

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtain from the use thereof.

26274-12442-100R-04/27/2001

