

Material Safety Data Sheet

Date of Preparation: 12/5/02

MSDS No. 314D

Section 1 – Chemical Product and Company Identification

Product Name: QUEST R134a SUPER SEAL COMMERCIAL -3OZ

Part Number(s): 314D

CAS Number: NOT APPLICABLE TO MIXTURES

Product Class: Automotive product

Manufacturer: E F Products, Inc. 1860 Crown Drive, Suite 1400, Dallas, TX 75234

Information Phone No.: 1-888-396-0422 **Emergency Phone No.:** 1-888-396-0422

Section 2 – Composition/ Information on Ingredients

Ingredient Name	CAS Number	OSHA TWA	ACGIH TLV
1,1,1,2- Tetrafluoroethane	811-97-2	-	-
Vinyltrimethoxysilane	2768-02-7	5 ppm	-
Methanol	67-56-1	200 ppm	200 ppm
Methyltrimethoxysilane	485-55-3	-	-
Polyalkylene Glycol	Proprietary	-	-
Cyclohexanone	108-94-1	20ppm	20ppm
Methylene Chloride	75-09-02	25ppm	25ppm
Aminopropyltrimethoxysilane	1760-24-3	10ppm	10ppm
Proprietary Ingredients			

Section 3 – Physical and Chemical Properties

Physical State: Liquid

Appearance/Odor: Clear, pale yellow/Etheral odor

% Volatile: N/A

Evaporation Rate: N/A

Boiling Range: -40F

Vapor Density (Air=1) Less than 5.0

Specific Gravity (@ C20 °C): 0.99-1.01

Vapor Pressure: 79 psig/Hg @ 25C

Section 4 – Fire Fighting Measures

Flash Point: 138C

Flash Point Method: Tag Closed Cup ASTM D 56

LEL: N/A

Extinguishing Media: Water/ Dry chemicals/Foam

Unusual Fire or Explosion Hazards: Vapors form from this product and may travel or be moved by air currents and ignited by pilot light or other flames and ignition sources at locations distant from product handling point. When this material is exposed to extreme heat, as in a fire, it may polymerize and rupture a closed container.

Section 5 – Stability and Reactivity

Stability: Stable

Polymerization: Hazardous polymerization may occur at temperatures above 150C. Avoid Peroxides, Catalytic metals and Polymerization catalysts.

Incompatibilities & Conditions to Avoid: Halogens in the presence of sunlight or ultraviolet light. Peroxides.

Reacts with water or moisture to form methanol.

Hazardous Decomposition Products: Burning can produce: oxides of carbon and silicon. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Section 6 – Health Hazard Information

Primary Entry Routes: Skin, dermal, inhalation and ingestion

Target Organs: Eyes, skin, respiratory system, liver, kidney, heart

Effects of Overexposure: Swallowing: May cause burning or painful sensations in the mouth, throat, chest and abdomen. May cause nausea, abdominal pain, vomiting, headache, dizziness, shortness of breath, weakness, fatigue, leg cramps, restlessness, confusion, drunken behavior, visual disturbances, drowsiness, coma, and death.

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There may be a delay of several hours between swallowing methanol and onset of signs and symptoms. The effects observed are in part due to acidosis and partially to cerebral edema. Visual effects include blurred vision, diplopia, changes in color perception, restriction of visual fields, and complete blindness. Ingestion of

moderate quantities of methanol also produces metabolic acidosis. Onset of symptoms may be delayed up to 48 hours. 60-200ml of methanol is a fatal dose for most adults. Ingestion of as little as 10 ml has caused blindness. With massive overdoses, liver, kidney, and heart muscle injuries have been described.

Inhalation: Low concentrations of vapor may cause irritation of the respiratory tract, nasal discomfort and discharge, chest pain and coughing. Prolonged overexposure may result in the inhalation of harmful or potentially fatal amounts of material.

Skin: Causes irritation with discomfort, local redness and possible swelling. Effects may be prolonged.

Eye Contact: Liquid or vapor causes irritation, experienced as stinging, excess blinking and tear production, with excess redness and swelling of the conjunctiva. Corneal injury may occur.

Chronic Effects: May cause a severe cumulative dermatitis. Vapor may cause lung injury.

Emergency and First Aid Procedures

Inhalation: Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

Eye Contact: Immediately flush eyes with water and continue washing for several minutes. Obtain medical attention.

Skin Contact: Remove contaminated clothing. Wash with soap and water. If irritation persists or if contact has been prolonged, obtain medical attention.

Ingestion: If patient is fully conscious, give two glasses of water. Induce vomiting. Obtain medical attention without delay. If medical advice is delayed, and if the person has swallowed a moderate volume of material (a few ounces), then give three to four ounces of hard liquor, such as whiskey. For children, give proportionally less liquor, according to weight.

Note to Physician: This product reacts with moisture in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis, and formic acid in the urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 ml per hour) allows it to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated by means of intravenous sodium bicarbonate and should be based on blood methanol levels and acid-base balance. Foliates may be administered to enhance the metabolism of formaldehyde.

Section 7 – Spill, Leak, and Disposal Procedures

Avoid runoff to sewers or waterways. Soak up small spills with absorbent material. Larger spills should be collected for disposal. Extinguish and do not turn on any ignition source until the area is determined to be free from fire or explosion hazard. Wear suitable protective equipment. Avoid contact with liquid and vapors.

Section 8 – Exposure Controls / Personal Protection

Respiratory protection: use self-contained breathing apparatus in high vapor concentrations.

Ventilation: This product should be stored and handled in closed equipment to keep vapors in and moisture out. When this is done, general room ventilation is expected to be satisfactory. Special, local ventilation is needed at points where vapors can be expected to escape to the workplace air.

Protective Equipment: Use protective gloves, eye protection, chemical apron and have eye bath and safety shower available.

California Prop 65: This product contains TOLUENE (less than 50ppm) which the State of California has found to cause birth defects or other reproductive harm.

DOT Transportation Data

<u>PART NUMBER(S)</u>	<u>SHIPPING NAME</u>	<u>HAZARD CLASS IDNO.</u>	<u>PACKING GROUP</u>
314D	Consumer Commodity	ORM-D N/A	N/A

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