

**Safety Data Sheet**  
**Surrender EF**

**SECTION I - IDENTIFICATION**

**PRODUCT IDENTIFIER:** Surrender EF  
**PRODUCT CODE:** 5460  
**RECOMMENDED USE:** Anti-Seize Compound  
**RESTRICTIONS ON USE:** None known.  
**COMPANY NAME:** QuestSpecialty Corporation  
**COMPANY ADDRESS:** P.O. Box 624, Brenham, TX 77834  
**COMPANY PHONE:** 800-231-0454  
**EMERGENCY PHONE:** 800-255-3924

**SECTION II – HAZARDS IDENTIFICATION**

**CLASSIFICATION:** Flammable Aerosol: Category 1  
Gases Under Pressure: Liquefied Gas  
Skin Irritant: Category 2  
Specific Target Organ Toxicity (Single Exposure): Category 3  
Aspiration Hazard: Category 1

**HAZARD STATEMENT(S): DANGER:** Extremely flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.

This product contains the following percentage of chemicals of unknown toxicity: N/A

**PRECAUTIONARY STATEMENTS:** Keep away from heat, sparks, open flames, and hot surfaces. -No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Wash hands thoroughly after handling. Wear protective gloves. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated place. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting. Dispose of contents and container in accordance with local, state and federal regulations.

**SYMBOL:**



**HAZARDS NOT OTHERWISE CLASSIFIED:** N/A

**SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENT	CAS NUMBER	PERCENT
Heptane	142-82-5	15-25%
Propane	74-98-6	5-10%
n-Butane	106-97-8	5-10%
Aluminum	7429-90-5	1-5%
Distillates (petroleum), hydrotreated light	64742-47-8	1-5%

**SECTION IV - FIRST AID MEASURES**

**EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

**INGESTION:** Rinse mouth out with water. Do not induce vomiting unless directed by medical authority. Keep head below hips if vomiting occurs. Seek immediate medical attention. Aspiration hazard.

**INHALATION:** Move to fresh air. If breathing is difficult, administer oxygen. If not breathing administer artificial respiration or at any sign of loss of consciousness seek immediate medical attention.

**SKIN:** Immediately wash with soap and water for 15 minutes. Remove contaminated clothing and shoes immediately. Seek medical attention if irritation develops.

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**ACUTE HEALTH HAZARDS:** Causes skin irritation including redness, burning and drying/cracking. Contact with eyes may cause irritation, redness, tearing. May cause respiratory irritation and central nervous system (CNS) depression. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

**CHRONIC HEALTH HAZARDS:** None known.

**NOTE TO PHYSICIAN:** Treatment of overexposure should be directed at the control of symptoms and the clinical condition. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

## SECTION V – FIRE-FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Dry chemical, carbon dioxide, foam, and water spray or fog.

**UNSUITABLE EXTINGUISHING MEDIA:** Water spray/stream.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear NIOSH approved Self Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires. Shut off all sources of ignition. Use water spray to disperse vapor and cool fire exposed containers. Prevent run off from entering streams, sewers, or drinking water supply.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** EXTREMELY FLAMMABLE. Contents under pressure. Exposure to temperatures above 120 °F may cause bursting. Keep away from heat, sparks, open flames and other sources of ignition. Cool containers with water spray.

**HAZARDOUS COMBUSTION PRODUCTS:** Oxides of carbon, sulfur, and various hydrocarbons.

## SECTION VI – ACCIDENTAL RELEASE MEASURES

**PERSONAL PROTECTIVE EQUIPMENT:** Refer to section VIII for proper Personal Protective Equipment.

**SPILL:** Contain spill, eliminate ignition sources and ventilate area. Prevent spill from entering sewers, storm drains, and natural waterways. Use non-combustible material like vermiculite, sand or earth for larger spills.

**WASTE DISPOSAL:** Dispose of in accordance with local, state and federal regulations. Do not dump in sewers. Wrap container and place in trash collection. Do not puncture, incinerate, or reuse container.

**RCRA STATUS:** Waste likely considered D001 (Ignitable waste), under RCRA, however product should be fully characterized prior to disposal (40 CFR 261).

## SECTION VII – HANDLING AND STORAGE

**HANDLING AND STORAGE:** Avoid contact with skin, eyes and clothing. Do not inhale mist or vapor. Wear proper personal protective equipment when using this product. Store in a cool, dry area. Keep away from heat, open flames, or other sources of ignition. Wash hands after use. Protect from sunlight. Store in a well ventilated area. Do not expose to temperatures exceeding 50 °C/122 °F. Pressurized container: Do not pierce or burn, even after use. Do not use or store with strong oxidizers.

**OTHER PRECAUTIONS:** Keep out of the reach of children. Read and follow the directions on the product label. They are the best guide to using the product in the most effective manner. The label also gives you the necessary safety precautions to protect your health.

**INCOMPATIBILITY:** Strong acids and bases, oxidizing agents.

## SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS INGREDIENT	OSHA PEL	ACGIH TLV
Heptane	500 ppm	400 ppm
Propane	1000 ppm	1000 ppm
n-Butane	Not Established	1000 ppm
Aluminum	15 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>
Distillates (petroleum), hydrotreated light	Not Established	Not Established

**ENGINEERING CONTROLS / VENTILATION:** Local ventilation/exhaust may be needed in confined spaces.

**RESPIRATORY PROTECTION:** Wear NIOSH/MSHA approved organic vapor respiratory protection if used in confined, poorly ventilated areas.

**PERSONAL PROTECTIVE EQUIPMENT:** Safety glasses/goggles and chemical resistant gloves.

**ADDITIONAL MEASURES:** Wash hands thoroughly with soap and water after use.

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## SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** Thick silver spray

**ODOR:** Solvent.

**ODOR THRESHOLD:** N/D

**pH:** N/A

**MELTING POINT/FREEZING POINT:** N/D

**INITIAL BOILING POINT AND BOILING RANGE:** N/D

**FLASH POINT:** N/D

**EVAPORATION RATE:** N/D

**FLAMMABILITY (solid/gas):** Extremely flammable aerosol.

**UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:**

**LOWER FLAMMABILITY LIMIT:** N/A

**UPPER FLAMMABILITY LIMIT:** N/A

**EXPLOSIVE LIMIT LOWER (%):** N/D

**EXPLOSIVE LIMIT UPPER (%):** N/D

**VAPOR PRESSURE (mm Hg):** N/D

**VAPOR DENSITY (AIR=1):** N/D

**RELATIVE DENSITY (H<sub>2</sub>O=1):** 0.86 - 0.91 @ 77 °F (25 °C)

**SOLUBILITY(IES):** Non-soluble in water.

**PARTITION COEFFICIENT: n-OCTANOL/WATER (K<sub>ow</sub>):** N/D

**AUTOIGNITION TEMPERATURE:** N/D

**DECOMPOSITION TEMPERATURE:** N/D

**VISCOSITY:** N/D

## SECTION X – STABILITY AND REACTIVITY

**REACTIVITY:** None known.

**CHEMICAL STABILITY:** Stable.

**POSSIBLE HAZARDOUS REACTIONS:** None known.

**CONDITIONS TO AVOID:** Temperatures greater than 122 °F (50 °C) and sources of ignition. Avoid incompatible materials.

**INCOMPATIBLE MATERIALS:** Strong acids and bases, oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of carbon, various hydrocarbons.

## SECTION XI – TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:** **Heptane** (142-82-5): LD<sub>50</sub> (Oral, Rat) > 15000 mg/kg; LD<sub>50</sub> (Dermal, Rabbit) > 3160 mg/kg; LC<sub>50</sub> (Inhalation, Rat, 4h) 103 mg/L. **Propane** (74-98-6): LC<sub>50</sub> (Inhalation, Rat, 4h) 658 mg/L. **n-Butane** (106-97-8): LC<sub>50</sub> (Inhalation, Rat, 4h) 30957 mg/m<sup>3</sup>. **Distillates (petroleum), hydrotreated light** (64742-47-8): LD<sub>50</sub> (Oral, Rat) 5 g/kg; LD<sub>50</sub> (Dermal, Rabbit) 2 g/kg; LC<sub>50</sub> (Inhalation, Rat, 4h) 5 mg/L.

**ROUTES OF ENTRY:** Eyes, Ingestion, Inhalation, Skin

**EYES:** May cause irritation, redness, tearing.

**INGESTION:** Ingestion of product may result in vomiting; aspiration (breathing) of vomitus into the lungs must be avoided as even small quantities may result in aspiration pneumonitis.

**INHALATION:** May cause respiratory tract irritation, dizziness, headaches, nausea, unconsciousness, central nervous system (CNS) depression.

**SKIN:** Causes localized defatting, irritation, may be absorbed through skin with systemic effects.

**MEDICAL CONDITION AGGRAVATED:** Pre-existing skin and respiratory disorders.

**ACUTE HEALTH HAZARDS:** Causes skin irritation including redness, burning and drying/cracking. Contact with eyes may cause irritation, redness, tearing. May cause respiratory irritation and central nervous system (CNS) depression. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

**CHRONIC HEALTH HAZARDS:** None known.

**CARCINOGENICITY:** OSHA: No ACGIH: No NTP: No IARC: 3 - Not classifiable OTHER: CA Prop 65

## SECTION XII – ECOLOGICAL INFORMATION

**ECOTOXICITY:** This material is toxic to aquatic life. **n-Heptane** (142-82-5): EC<sub>50</sub> (*Daphnia magna*, 48h) 1.50 mg/L.

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**PERSISTENCE AND DEGRADABILITY:** Component or components of this product are not biodegradable.

**BIOACCUMULATIVE POTENTIAL:** No additional information available.

**MOBILITY IN SOIL:** N/D

**OTHER ADVERSE EFFECTS:** None known.

### SECTION XIII – DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL:** Dispose of in accordance with local, state and federal regulations. Do not dump in sewers. Wrap container and place in trash collection. Do not puncture, incinerate, or reuse container.

**RCRA STATUS:** Waste likely considered D001 (Ignitable waste), under RCRA, however product should be fully characterized prior to disposal (40 CFR 261).

### SECTION XIV - TRANSPORT INFORMATION

**PROPER SHIPPING NAME:** Aerosols, Ltd. Qty.

**HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN1950

**PACKING GROUP:** N/A

#### AIR SHIPMENT

**PROPER SHIPPING NAME:** Aerosols, flammable.

**HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN1950

**PACKING GROUP:** N/A

#### SHIPPING BY WATER:

##### VESSEL (IMO/IMDG)

**PROPER SHIPPING NAME:** Aerosols.

**HAZARD CLASS/DIVISION:** 2.1

**UN/NA NUMBER:** UN1950

**PACKING GROUP:** N/A

**ENVIRONMENTAL HAZARDS WATER:** Marine Pollutant.

### SECTION XV - REGULATORY INFORMATION

**TSCA STATUS:** All chemicals are listed or exempt.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):** None.

**SARA 311/312 HAZARD CATEGORIES:** Flammable (gases, aerosols, liquids, solids). Gas under pressure. Skin corrosion or irritation. Specific target organ toxicity (single or repeated exposure). Aspiration hazard.

**SARA 313 REPORTABLE INGREDIENTS:** **Aluminum** (fume or dust) (7429-90-5).

**STATE REGULATIONS:** **California Proposition 65: WARNING:** This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). **Heptane** (142-82-5): Included on State Hazardous Substances Inventories, Right-to-Know lists and/or Air Quality or Air Pollutants lists for the following states: CA, IL, MA, NJ, PA, RI. **Aluminum** (7429-90-5): Included on State Hazardous Substances Inventories, Right-to-Know lists and/or Air Quality or Air Pollutants lists for the following states: NJ, PA, RI.

**INTERNATIONAL REGULATIONS:** No information available.

**VOLATILE ORGANIC COMPOUNDS (VOC):** 38.5%

**NFPA HEALTH:** 2

**HMIS HEALTH:** 2

**NFPA FLAMMABILITY:** 3

**HMIS FLAMMABILITY:** 3

**NFPA REACTIVITY:** 0

**HMIS REACTIVITY:** 0

**NFPA OTHER:** None

**HMIS PROTECTION:** B

### SECTION XVI - OTHER INFORMATION

**PREPARATION BY:** Mitch Whitney

**DATE PREPARED:** 11/16/2015

**REVISION DATE:** 07/12/2023

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N/A = Not Applicable; N/D = Not Determined

**DISCLAIMER:** To the best of our knowledge, information contained herein is accurate. However, there is no assumption of liability 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. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions or handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.