

## Section 1 – Identification

Product identifier	Renewable Diesel
Other means of identification	
Synonyms	VelociD™, Renewable Hydrocarbon Diesel, RHD, Renewable Diesel, Renewable Synthetic Diesel Fuel, Renewable Diesel Fuel, Bio-Derived Diesel, Biomass-Based Diesel, Diesel Fuel No. 2, R98.9 Diesel Fuel, odorless mineral spirits, hydrotreated esters and fatty acids, HEFA, HVO, HDRD, HRD, R99.9, RD, paraffinic middle distillate, RD975, REG – 9000™ / RHD, REG 9000 / RHD, REG RDB5, R100.
Recommended use	Fuel for use in compression ignition engines, in other combustion applications, a solvent, or an industrial blendstock.
Restrictions on use	Not intended for direct human consumption.
Supplier information	REG Marketing & Logistics Group, LLC 416 S. Bell Ave Ames, IA 50010 (888) 734-8686
Emergency phone number	Call ChemTel LLC for emergency service 24 hours a day (800) 255-3924 (North America) +1 (813) 248-0585 (International)

## Section 2 – Hazard(s) Identification

### Classification (in accordance with 29 CFR 1910.1200)

Hazard Class	Hazard Category	Route of Exposure
Skin Irritation	Category 2	Absorption / Dermal Contact
Eye Irritation	Category 2A	Absorption / Eye Contact
Aspiration Hazard	Category 1	Ingestion then aspiration
Flammable Liquid	Category 3	Physical Hazard

Signal word **DANGER**

Pictograms



Hazard Statements

H315	Causes skin irritation
EUH066	Repeated contact may cause skin dryness or cracking
H319	Causes serious eye irritation
H304	May be fatal if swallowed and enters airways
H226	Flammable liquid and vapor

Precautionary statements

Prevention Wash hands thoroughly after handling. Wear protective gloves. Wear eye protection/face protection. Keep away from heat, sparks, open flames, hot surfaces. No smoking. Keep container tightly closed.

Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin, wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing immediately and wash it before reuse. If in 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/attention. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use firefighting foam, dry chemical, carbon dioxide, or other clean extinguishing agents (such as Halon or Halotron) to extinguish.
Storage	Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents/container in accordance with local, regional, national, and international regulations.
Hazards not otherwise specified	Static Accumulator (50 picosiemens or less). This product can accumulate static charge by flow or agitation, and a static discharge could cause this product to ignite.
Ingredient(s) with unknown acute toxicity (if ≥ 1%)	This product is not classified based on testing of the mixture as a whole. Up to 100% of this mixture contains ingredients of unknown acute toxicity.

## Section 3 – Composition / Information on Ingredients

**Basic components** This product is a complex combination of hydrocarbons obtained by the hydrodeoxygenation and catalytic hydroisomerization of animal fats and vegetable oils followed by distillative fractionation. It consists mostly of branched and linear paraffins having carbon numbers ranging from C<sub>9</sub> to C<sub>18</sub>.

Chemical Name	Common Name & Synonyms	CAS number	% of product
Fuels, diesel, C9-18-alkane branched & linear	Renewable Hydrocarbon Diesel, RD, Renewable Diesel	1159170-26-9	98 – 100%
Fatty acids, C14-18 and C16-18-unsatd., Me esters	Methyl Esters	67762-26-9	< 5.5%
Petroleum fuel oil	Diesel Fuel	68476-30-2	< 1%
Diesel Oil C9-20	Fuels, Diesel	68334-30-5	< 1%

## Section 4 – First-Aid Measures

First-aid measures for exposure

Inhalation	If breathing difficulties develop, move victim away from source of exposure and into fresh air. Seek medical attention.
Skin	Take off contaminated clothing immediately and wash it before reuse. If on skin, wash thoroughly with soap and water. If skin irritation or rash occurs, get medical advice.
Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists: Get medical attention.

Ingestion	Aspiration Hazard: Do NOT induce vomiting. If swallowed: Immediately call a poison control center or physician.
Most important symptoms / effects	
Acute	Aspiration into the lungs can cause fatal chemical pneumonitis. If ingestion has occurred, assume there is a risk of aspiration into the lungs – especially if nausea or irritation occurs.
Delayed / Chronic	Repeated exposure may cause dryness and cracking of the skin.
Indication of immediate medical attention	Aspiration into the lungs can cause fatal chemical pneumonitis. Treat symptomatically and supportively.
Special treatment needed, if necessary	No information available.

## Section 5 – Fire-Fighting Measures

Suitable extinguishing media	Firefighting foam, dry chemical, carbon dioxide, or other clean extinguishing agents (such as Halon or Halotron). Water mist may be effective for extinguishing soaked oily materials if applied by experienced fire-fighting personnel.
Unsuitable extinguishing media	Do not use a solid water stream, as it may scatter and spread the fire.
Specific hazards arising from the chemical	Static accumulator (50 picosiemens or less), unless performance additive has been added to mitigate static accumulation. This product can accumulate static charge by flow or agitation, and a static discharge could cause this product to ignite. This product can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, or mechanical/electrical equipment). Heated liquid can release vapors that may readily form flammable mixtures at or above its flash point. If container is not properly cooled, it can rupture in the heat of a fire.
Hazardous combustion products include	Carbon monoxide, carbon dioxide, nitrogen oxides, and hydrocarbons.
Protective equipment and precautions for firefighters	Incipient stage fires may be controlled with a portable fire extinguisher. For fires beyond the incipient stage, evacuate all unnecessary personnel. Emergency responders in the immediate area should wear standard firefighting protective equipment, including self-contained breathing apparatus (SCBA) and full bunker gear. In case of external fires in proximity to storage containers, use water spray to keep containers cool, if it can be done safely. Prevent runoff from entering streams, sewers, storm drains, or drinking water supply.

## Section 6 – Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures	Keep all sources of ignition away from spill / release. The use of explosion-proof equipment is recommended. Wear protective garments, impervious oil resistant boots, protective nitrile gloves, and safety glasses. If product has been heated, wear appropriate thermal and chemical protective equipment. If splash is a risk, wear splash resistant goggles and face shield. Shut off source of spill, if safe to do so. Contain spill to the smallest area possible. Isolate immediate hazard area and remove all nonessential personnel. Prevent spilled product from entering streams, sewers, storm drains, unauthorized treatment drainage systems, and natural waterways. Place dikes far ahead of the spill for later recovery and disposal. Immediate cleanup of any spill is recommended. <b>If material spills</b>
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into or upon any navigable waters and causes a film or sheen on the surface of the water, immediately notify the National Response Center at 1-800-424-8802.

## Methods for containment and clean-up

### Small spill / incidental release

Small spills can be cleaned up with absorbent inert media (oil dri, sand, or earth), or absorbent pads. Use soapy water or degreaser to remove oily residue from the affected area, then rinse area with water. Place saturated materials in an appropriate oily waste container (metal can with a metal lid or an enclosed oily waste dumpster), and dispose of according to local, state, and federal regulations.

### Large spill / release

A spill remediation contractor with oil booms and skimmers may be needed for larger spills or spills that come into contact with a waterway or sensitive wetland. Recover as much product as possible by pumping it into totes or similar intermediate containers. Remove any remaining product with absorbent inert media (oil dri, sand, or earth), or absorbent pads. Use soapy water or degreaser to remove oily residue from the affected area, then rinse area with water. Place saturated materials in an appropriate oily waste container (metal can with a metal lid or an enclosed oily waste dumpster), and dispose of according to local, state, and federal regulations.

### Other information

Materials saturated with this product, such as oily rags, used oil dri, soaked insulation pads, etc., may spontaneously combust due to product decomposition in the presence of oxygen. Place all such materials into appropriate oily waste containers (such as metal cans with metal lids or oily waste dumpsters with lids), and dispose of according to local, state, and federal regulations.

## Section 7 – Handling and Storage

### Precautions for safe handling

Open container slowly to relieve any pressure. When transferring product, use pipes, hoses, and tanks that are electrically bonded and grounded to prevent the accumulation of static electricity. This product can accumulate static charge by flow or agitation, and a static discharge could cause ignition. Use explosion-proof electrical equipment (ventilation, lights, material handling, etc...). Wash thoroughly after handling and before eating, drinking or using toilet facilities. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

“Empty” containers can retain residue that may be ignitable. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks or other sources of ignition. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

### Conditions for safe storage, including incompatibilities

Use and store this material in cool, dry, well ventilated areas away from all sources of ignition. Storage tanks should have an appropriate ventilation and pressure relief system. Store only in approved containers, and keep them tightly closed. Keep away from strong oxidizing agents, strong reducing agents, strong acids, and strong bases. Open containers should be carefully resealed and kept upright to avoid leakage. Protect the container against physical damage.

## Section 8 – Exposure Controls / Personal Protection

### Precautions for safe handling

### Component exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

# Safety Data Sheet (SDS)

Component	CAS #	OSHA PEL	ACGIH TLV	Form	Weight %
Fuels, diesel, C <sub>9-18</sub>	1159170-26-9	None	None	Liquid, Vapor or Aerosol	98-100%
ULS Diesel	68476-30-2	None	100 mg/m <sup>3</sup> TWA	Vapor & Aerosol	<2%

**Appropriate engineering controls**

Keep product enclosed in primary containment (hoses, pipes, tanks, etc.) to avoid contact with skin. Handle in accordance with good industrial hygiene and safety practices.

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended. Eye washes and showers should be available for emergency use. Firewater monitors and deluge systems are recommended. Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping. Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Do not ingest. If swallowed then seek immediate medical assistance.

**Hygiene measures**

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Individual Protection Measures**
**Personal protective equipment**
**Eyes / face**

Chemical splash goggles are recommended. However, if a local risk assessment determines that chemical splash goggles may not be required, safety glasses should be selected to provide adequate eye protection. If splash potential exists, add the use of a face shield.

**Skin**

Wear disposable nitrile gloves for incidental contact. For more substantial contact, wear thicker nitrile or other similar oil-resistant gloves. Wear protective garments, such as a chemical apron, chemical resistant coveralls, or chemical resistant coat and pants, along with impervious oil-resistant boots. Remove soaked protective equipment, decontaminate with soapy water, and rinse thoroughly before reuse. Note: product will cause natural rubbers to degrade at a very rapid rate. Such protective equipment will need to be carefully inspected after decontamination to see if it is still in serviceable condition. Any defective or worn out equipment should be immediately discarded.

**Respiratory**

No exposure limits are available for this product as a mixture, but appropriate organic vapor or supplied air respiratory protection may be worn if irritation or discomfort is experienced. Where required, respiratory protection must be provided and used in accordance with all local, state, and federal regulations.

## Section 9 – Physical and Chemical Properties

<b>Appearance - Physical State:</b>	Liquid	<b>Appearance - Color:</b>	Clear to yellow/green tint ( <i>May also be colored red – if sold for off road use</i> )
<b>Odor:</b>	Odorless to mild paraffin	<b>Odor Threshold:</b>	No information available

<b>pH:</b>	No information available	<b>Melting/Freezing Point:</b>	No information available
<b>Boiling Point/Range:</b>	150-315° C (300-600° F)	<b>Flash Point:</b>	>52° C (>125° F)
<b>Evaporation Rate:</b>	No information available	<b>Flammability (solid/gas):</b>	No information available
<b>LFL:</b>	0.6%	<b>UFL:</b>	4.7%
<b>Vapor Pressure:</b>	<0.3 mmHg @ 20° C	<b>Vapor Density:</b>	>1 (air=1)
<b>Relative Density @ 15° C:</b>	0.77 – 0.79 g/ml	<b>Volatile Organic Compounds:</b>	No information available
<b>Solubility (H<sub>2</sub>O):</b>	Insoluble	<b>Solubility (other):</b>	No information available
<b>Auto Ignition Temp.:</b>	No information available	<b>Decomposition Temp.:</b>	No information available
<b>Viscosity (at 40° C):</b>	1.9 – 4.1 cP	<b>Partition coefficient (n-octanol/water) :</b>	No information available

## Section 10 – Stability and Reactivity

Reactivity	When handled and stored appropriately, no dangerous reactions are known.
Chemical stability	Stable in closed containers at room temperature under normal storage and handling conditions. Hazardous polymerization will not occur.
Possibility of hazardous reactions	When handled and stored appropriately, no dangerous reactions are known.  If product is heated beyond its flash point, vapors can cause a flash fire.  See Sections 5 and 6 regarding spontaneous combustion of product-saturated absorbent materials.
Conditions to avoid	Ignition sources, accumulation of static electricity, heating product to its flash point, or allowing the product to cool below its melting point (otherwise it may solidify and not be transferable until it is reheated).
Incompatible materials	Keep away from strong oxidizing agents, strong reducing agents, strong acids, and strong bases.
Hazardous decomposition products	Carbon monoxides, carbon dioxide, nitrogen oxides, hydrocarbons, water vapor.

## Section 11 – Toxicological Information

Likely routes of exposure	Absorption, ingestion, and inhalation.
Symptoms	
Inhalation	Coughing or irritation (vapor, mist, or aerosols).
Ingestion	Nausea, vomiting, or feeling unwell.
Skin contact	Redness, or irritation.
Eye contact	Redness or irritation and tearing.
Acute toxicity	
Oral	No information available.
Dermal	No information available.
Inhalation	No information available.

Skin corrosion / irritation	No testing was available. However, prolonged or repeated skin contact may irritate the skin and produce dermatitis.
Serious eye damage / eye irritation	No testing was available. However, oil mist may irritate the eyes.
Sensitization ( <i>Respiratory or Skin</i> )	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Component carcinogenicity	No information was available for the listed components of this product. However, IARC, NTP, and NIOSH list diesel exhaust particulates as a possible carcinogen.
Reproductive / developmental toxicity	No information available.
Specific target organ toxicity	No information available.
Single exposure	No information available.
Repeated exposure	No information available.
Aspiration hazard	Due to kinematic viscosity below 5.0 cSt, OSHA regulations state this product may be fatal if it is swallowed and then enters the airways.

## Section 12 – Ecological Information

Acute ecotoxicity - short-term exposure	
Fish	No information available.
Invertebrates	No information available.
Algae	No information available.
Persistence and degradability	Biodegradation at >44% (per ASTM D5864-05).
Bioaccumulative potential	No information available.
Mobility in soil	No information available.
Other adverse effects	No information available.

## Section 13 – Disposal Considerations

Disposal ( <i>waste / unwanted product</i> )	This material, if discarded as produced, would be a RCRA “characteristic” hazardous waste due to the characteristic of ignitability (flash point <140° F). If the material is spilled to soil or water, characteristic testing of the contaminated materials is recommended. Further, this material, once it becomes a waste, is subject to the land disposal restrictions in 40 CFR 268.40 and may require treatment prior to disposal to meet specific standards. Consult federal, state and local regulations to ensure they are followed.
Disposal ( <i>containers with residue</i> )	Container contents should be completely used and containers should be emptied prior to discarding. Containers must be disposed in compliance with federal, state, and local regulations. To assure






Hazard Class
Skin Irritation
Eye Irritation
Aspiration Hazard
Flammable Liquid
<input checked="" type="checkbox"/> Hazard Not Otherwise Classified (HNOC) – see Section 2 for more information

## U.S. State Regulations

### California Proposition 65:

 This product can expose you to chemicals including [name of one or more chemicals], which is [are] known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Fuels, diesel, No 2 (diesel engine exhaust is listed as a possible carcinogen)
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### U.S. State Right-to-Know Regulations:

#### New Jersey

US New Jersey Worker and Community Right-to-know Act (New Jersey Statute Annotated Section 34:5A-5)

#### Component

CAS Number

Fuels, diesel, No 2

68476-34-8

#### Pennsylvania

US Pennsylvania Worker and Community Right-to-know Law (34 PA. Code Chap. 301-323)

#### Component

CAS Number

Fuels, diesel, No 2

68476-34-8

## International Regulations

### European Union Regulations

European Chemicals Agency (ECHA)

Renewable hydrocarbons (diesel type fraction)

EC | 700-571-2

REACH | 01-2120043692-58-0007

Tonnage Band | over 1000 tonnes/year

## **Section 16 – Other Information**

Issuing Date: Jan 20, 2014

Revision Date: April 14th, 2022

Version #: 20220414

Revision Note: Added synonym.

NFPA 704 Ratings	
Health Hazard:	1
Flammability:	2
Instability:	0
Other:	-



WARNING: POTENTIALLY HAZARDOUS MATERIAL. IMPROPER USE OR MISHANDLING CAN RESULT IN SERIOUS INJURY OR DEATH. THIS PRODUCT CONTAINS SUBSTANCES WHICH, IF MODIFIED, MAY BE FLAMABLE AND MAY BURN OR EXPLODE IF HEATED OR EXPOSED TO FLAME OR OTHER IGNITION SOURCE OR WATER, OXIDIZING AGENTS, ACIDS OR OTHER CHEMICALS. AVOID INGESTION, INHALATION AND CONTACT WITH SKIN AND EYES.

**Disclaimer:**

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of SDS**