

# Safety Data Sheet



Global Marine Products



## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### RESIDUAL MARINE FUELS, RMA-RMK

**Product Use:** Fuel Oil

**Synonyms:** 24114 BUNKER FUEL HS, 180 MM2/S MAX AT 50°C, 28090 BUNKER FUEL HS, 420 MM2/S MAX AT 50°C, 28276 BUNKER FUEL HS, 380 MM2/S MAX AT 50°C, 28724 BUNKER FUEL HS, 320 MM2/S MAX AT 50°C, 28800 BUNKER FUEL HS, 280 MM2/S MAX AT 50°C, 29066 BUNKER FUEL HS, 240 MM2/S MAX AT 50°C, 29068 FUEL HEAVY 380 CST, 29435 MARINE RESIDUAL FUEL - RMF 25, 29442 FUEL OIL, 65 MM2/S MAN (at 100C), 29754 FUEL OIL, 440 MM2/S MAX (AT 50C) - 3.5% S, 29785 FUEL OIL, 420 MM2/S MAX (AT 50C) - 1% S, 32788 BUNKER FUEL HS, 100 MM2/S MAX AT 50°C, 32789 BUNKER FUEL HS, 120 MM2/S MAX AT 50°C, 32790 BUNKER FUEL HS, 80 MM2/S MAX AT 50°C, 32791 BUNKER FUEL HS, 60 MM2/S MAX AT 50°C, 32792 BUNKER FUEL HS, 40 MM2/S MAX AT 50°C, 32793 BUNKER FUEL HS, 30 MM2/S MAX AT 50°C

#### Company Identification

Chevron Products UK Limited  
1 Westferry Circus  
Canary Wharf  
London E14 4HA  
United Kingdom  
+44(0)20 77 19 3000

#### Transportation Emergency Response

Europe: 0044/(0)18 65 407333

#### Health Emergency

Chevron Emergency Information Center: Emergency Information Centers are located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623

#### Product Information

Product Information: +44(0)20 77 19 3000  
FAX number: +44(0)20 77 19 5171

## SECTION 2 HAZARDS IDENTIFICATION

**CLASSIFICATION:** Carc. Cat. 2; R45 | R66 | R52/53 |

#### IMMEDIATE HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Skin contact may cause drying or defatting of the skin. Symptoms may include pain, itching, discoloration, swelling, and blistering.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Hydrogen sulfide has a strong rotten-egg odor. However, with continued exposure and at high levels, H<sub>2</sub>S may deaden a person's sense of smell. If the rotten egg odor is no longer noticeable, it may not necessarily mean that exposure has stopped. At low levels, hydrogen sulfide causes irritation of the eyes, nose, and throat. Moderate levels can cause headache, dizziness, nausea, and vomiting, as well as coughing and difficulty breathing. Higher levels can cause shock, convulsions, coma, and death. After a serious exposure, symptoms usually begin

immediately.

**DELAYED OR OTHER HEALTH EFFECTS:** Prolonged or repeated exposure to this material may cause cancer.

**ENVIRONMENTAL EFFECTS:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	EC NUMBER	SYMBOL / RISK PHRASES	AMOUNT
Fuel oil, residual	270-675-6	T/Carc. Cat. 2/R45, R66, R52/53	100 %weight

The full text of all R-phrases is shown in Section 16.

### SECTION 4 FIRST AID MEASURES

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. To remove the material from skin, apply a waterless hand cleaner, mineral oil, or petroleum jelly. Then wash with soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs. If exposure to hydrogen sulfide (H<sub>2</sub>S) gas is possible during an emergency, wear an approved, positive pressure air-supplying respirator. Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**Note to Physicians:** Administration of 100% oxygen and supportive care is the preferred treatment for poisoning by hydrogen sulfide gas. For additional information on H<sub>2</sub>S, see Chevron MSDS No. 301.

### SECTION 5 FIRE FIGHTING MEASURES

See Section 7 for proper handling and storage.

**FLAMMABLE PROPERTIES:**

**Flashpoint:** (Pensky-Martens Closed Cup) 62 °C (143 °F) Minimum

**Autoignition:** 263 °C (505 °F)

**Flammability (Explosive) Limits (% by volume in air):** Lower: 0.7 Upper: 5

**EXTINGUISHING MEDIA:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**PROTECTION OF FIRE FIGHTERS:**

**Fire Fighting Instructions:** This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Sulfur .

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Protective Measures:** Eliminate all sources of ignition in vicinity of spilled material.

**Spill Management:** Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

**Reporting:** Report spills to local authorities as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**Specific Use:** Fuel Oil

**Precautionary Measures:** Do not get in eyes, on skin, or on clothing. If this material is heated above 49C (120F) thermal burns can result from accidental contact with skin or eyes. Wear appropriate personal protective equipment if engineering controls or work practices are not adequate to prevent contact. Some heated materials may release fumes that are unpleasant and produce nausea and irritation of the eyes and respiratory tract. Use in a well-ventilated area. Wash thoroughly after handling.

**Unusual Handling Hazards:** Toxic quantities of hydrogen sulfide (H<sub>2</sub>S) may be present in storage tanks and bulk transport vessels which contain or have contained this material. Persons opening or entering these compartments should first determine if H<sub>2</sub>S is present. See Exposure Controls/Personal Protection -Section 8. Do not attempt rescue of a person over exposed to H<sub>2</sub>S without wearing approved supplied-air or self-contained breathing equipment. If there is a potential for exceeding one-half the occupational exposure standard, monitoring of hydrogen sulfide levels is required. Since the sense of smell cannot be relied upon to detect the presence of H<sub>2</sub>S, the concentration should be measured by the use of fixed or portable devices.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted.

Suggested materials for protective gloves include: Nitrile Rubber, Polyvinyl Alcohol (PVA) (Note: Avoid contact with water. PVA deteriorates in water.), Viton.

**Respiratory Protection:** No respiratory protection is normally required. Determine if airborne concentrations are below the occupational exposure limit for hydrogen sulfide. If not, wear an approved positive pressure air-supplying respirator. For more information on hydrogen sulfide, see Chevron MSDS No. 301.

No applicable occupational exposure limits exist for this material or its components. Consult local authorities for appropriate values.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**Color:** Black

**Physical State:** Liquid

**Odor:** Petroleum odor

**pH:** Not Applicable

**Vapor Pressure:** <0.04 psi (Estimated)

**Vapor Density (Air = 1):** >1 (Estimated)

**Boiling Point:** 160°C (320°F) - 600°C (1112°F)

**Solubility:** Insoluble in water.

**Freezing Point:** No Data Available

**Specific Gravity:** 1.005 (Estimated) @ 15°C (59°F)

**Density:** 1010 kg/m<sup>3</sup> @ 15°C (59°F) Maximum

**Viscosity:** 10 - 55 mm<sup>2</sup>/s @ 100°C (212°F)

**SECTION 10 STABILITY AND REACTIVITY**

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous Decomposition Products:** Hydrogen Sulfide (Elevated temperatures)

**Hazardous Polymerization:** Hazardous polymerization will not occur.

**SECTION 11 TOXICOLOGICAL INFORMATION****IMMEDIATE HEALTH EFFECTS**

**Eye Irritation:** The eye irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Irritation:** The skin irritation hazard is based on evaluation of data for similar materials or product components.

**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for similar materials or product components.

**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from products of a similar structure and composition.

### MOBILITY

No data available.

### PERSISTENCE AND DEGRADABILITY

May cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from products of a similar structure and composition.

### POTENTIAL TO BIOACCUMULATE

Bioconcentration Factor: No data available.  
Octanol/Water Partition Coefficient: No Data Available

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations. In accordance with European Waste Catalogue (E.W.C.) the codification is the following: 13 07 01

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult appropriate Dangerous Goods Regulations for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

**ADR/RID Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER ADR/RID/

**ICAO/IATA Shipping Description:** NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER ICAO

**IMO/IMDG Shipping Description:** MAY BE REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION UNDER THE IMDG CODE

## SECTION 15 REGULATORY INFORMATION

### REGULATORY LISTS SEARCHED:

---

01=EU. Directive 76/769/EEC: Restrictions on the marketing and use of certain dangerous substances.  
02=EU Directive 90/394/EEC: Carcinogens at work.  
03=EU Directive 92/85/EEC: Pregnant or breastfeeding workers.  
04=EU Directive 96/82/EC (Seveso II): Article 9.  
05=EU Directive 96/82/EC (Seveso II): Articles 6 and 7.  
06=EU Directive 98/24/EC: Chemical agents at work.

The following components of this material are found on the regulatory lists indicated.  
Fuel oil, residual 01, 02, 03, 06

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), IECSC (China), PICCS (Philippines), TSCA (United States).

**CLASSIFICATION - LABELING:**

Under the criteria of the directive EEC/67/548 (dangerous substances) and EEC/1999/45 (dangerous preparations):

- contains: Fuel oil, residual

**Symbols:** T - Toxic

R45; May cause cancer.  
R66; Repeated exposure may cause skin dryness or cracking.  
R52/53; Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
S45; In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S53; Avoid exposure -- obtain special instructions before use.  
S61; Avoid release to the environment. Refer to special instructions/safety data sheets.

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1, 14, 16.

**Revision Date:** APRIL 23, 2009

**Full text of R-phrases:**

R45; May cause cancer.  
R52/53; Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R66; Repeated exposure may cause skin dryness or cracking.

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV	-	Threshold Limit Value	TWA	-	Time Weighted Average
STEL	-	Short-term Exposure Limit	PEL	-	Permissible Exposure Limit
CVX	-	Chevron	CAS	-	Chemical Abstract Service Number

Prepared according to the criteria of the directive 2001/58/EC by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which**

we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.