



Gas Oil Health and Safety Data Sheet

1) IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of Substance/preparation

This safety data sheet covers: Goff Gas Oil, 35 Second Oil, Red Diesel, & Agricultural Diesel.

Application: Fuel for industrial or domestic burners; fuel for compression ignition diesel engines.

Company Identification: George J. Goff Ltd. t/a Goff Petroleum 297 Aylsham Road Norwich Norfolk NR3 2RH.

2) COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Composition: A complex mixture of middle distillate hydrocarbons, with carbon numbers in C10 to C28 range. The product may contain small quantities of performance enhancing additives.

Hazardous Components: Fuels, diesel. EINECS No: 269-822-7, CAS No: 68334-30-5, Xn, N, R40 Possible risks of irreversible effects, R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment, R65 Harmful: may cause lung damage if swallowed. (>90%)

3) HAZARDS IDENTIFICATION

Harmful if swallowed - aspirational hazard. This material may contain significant quantities of polycyclic aromatic hydrocarbons (PCAs), some of which have been shown by experimental studies to induce skin cancer.

4) FIRST AID MEASURES

Eyes: Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.

Skin: Wash skin thoroughly with soap and water as soon as reasonable practicable. Remove heavily contaminated clothing and wash underlying skin.

Ingestion: If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If this should occur, do not induce vomiting; obtain medical advice.

Inhalation: If fumes are inhaled the patient should be removed to fresh air and if recovery is not immediate, medical assistance must be called without delay. If breathing has failed respiration must be assisted, preferably by mouth to mouth method.

Medical Advice: Product can be aspirated on swallowing or following regurgitation of stomach contents, and can cause severe and potentially fatal chemical pneumonitis, which will require urgent treatment. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Gastric lavage should only be undertaken after endotracheal intubation. Monitor for cardiac dysrhythmias.

Note: High Pressure Applications: Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within hours human tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. High pressure application may force the product considerable distances along tissue planes.

5) FIRE FIGHTING MEASURES

For major fires call the Fire Service. Ensure an escape path is always available from any fire. There is a danger of flashback if sparks or hot surfaces ignite vapour. Use foam, dry powder or water fog. DO NOT USE water jets. Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.

Combustion Products: Toxic fumes may be evolved on burning or exposure to heat. See Stability and Reactivity, Section 10 of this Safety Data Sheet.

6) ACCIDENTAL RELEASE MEASURES

Any spillage should be regarded as a potential fire risk. In the event of a spillage, remove all sources of ignition and ensure good ventilation. Wear protective clothing. See Exposure Controls/Personal Protection, Section 8, of this Safety Data Sheet. Spilled material may make surfaces slippery. Clean up spilled material immediately. Contain and recover spilled material using sand or other suitable inert absorbent material. Recovery of large spillage should be effected by specialised personnel.

It is advised that stocks of absorbent material should be held in quantities sufficient to deal with any spillage which may be reasonably anticipated. Large and uncontained spillage should be smothered with foam to reduce the risk of ignition. The foam blanket should be maintained until the area is declared safe. Protect drains from potential spills to minimise potential contamination. Do not wash product into drainage system. Vapour is heavier than air and may travel to remote sources of ignition(eg. along drainage systems, in basements etc.) If spillage has occurred in a confined

space, ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry,

In case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Protect environmentally sensitive areas and water supplies. In the case of spillage at sea approved dispersants may be used where authorised by the appropriate government/regulatory authorities. Regular surveillance on the location of the spillage should be maintained.

In the event of spillage contact the appropriate authorities. If spillage occurs call the Environment Agency Emergency Hotline on 0800 807060 (24hrs).

7) HANDLING AND STORAGE

Storage Conditions: Store and dispense only in well ventilated areas away from heat and sources of ignition. Store and use only in equipment/containers designed for use with this product. Containers must be properly labelled and kept closed when not in use. Do not remove warning labels from containers. Empty packages may contain some remaining product. Retain hazard warning labels on empty packages as a guide to the safe handling, storage and disposal of empty packaging. Do not enter storage tanks without breathing apparatus unless the tank has been well ventilated and the tank atmosphere has been shown to contain hydrocarbon vapour concentrations of less than 1% of the lower flammability limit and the oxygen concentration of at least 20% volume. Always have sufficient people standing by the outside of the tank with appropriate breathing apparatus and the equipment to effect a quick rescue.

Handling Precautions: Avoid, as far as reasonably practicable, inhalation of vapour, mists or fumes generated during use. Avoid contact with skin, and observe good personal hygiene. Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. Do not siphon product by mouth. Do not eat, drink, or smoke whilst using. Wash hands thoroughly after use. Use disposable cloths and discard when soiled. Do not put soiled cloths into pockets. Take all necessary precautions against accidental spillage into soil or water. Empty containers represent a fire hazard as they may contain some remaining flammable product and vapour. Never cut, weld, solder, or braze empty containers.

Fire Prevention: Light hydrocarbon vapours can build in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flashpoint. Flashpoint must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces. Tank headspaces should be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources must be removed during filling, ullaging and sampling from storage tanks. The product will present a flammability hazard if heated above flash point but bulk liquids at normal storage temperatures will present virtually no fire hazard. If fuel contacts hot surfaces, or leaks from high pressure fuel pipes, the vapour and/or mists generated will create a flammability and explosion hazard. When the product is pumped and when sampled, there is a risk of static discharge. Ensure all equipment used is properly earthed.

Product contaminated material represent a fire hazard and should not be allowed to accumulate. Dispose of them safely after use. Empty containers represent a fire hazard as they may contain some remaining flammable product and vapour. Never cut, weld, solder, or braze empty containers.

8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: There is no appropriate occupational exposure limit for this material. If vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.

Protective Clothing: Wear face visor or goggles in circumstances where eye contact can accidentally occur. If skin contact is likely, wear impervious protective clothing and gloves. Protective clothing should be regularly inspected and maintained: overalls should be dry cleaned, laundered and preferably starched after use.

Respiratory Protection: If operations are such that significant exposure to vapour, mist or fume may be anticipated, then suitable approved respiratory equipment should be worn. The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.

9) PHYSICAL AND CHEMICAL PROPERTIES

Note: National Specifications apply. Grade: Gas Oil dyed red.

Typical values

Goff Gas Oil	Test Method	Units	Grade
Physical State			liquid
Colour			red
Odour			Gas Oil like
Density @ 15C	ASTM D 1298	kg/m ³	800 - 890
Boiling point/range	ASTM D 86	C	160-385
Flash point (PMCI)	ASTM D 93	C	60 min
Kinematic Viscosity @40C	ASTM D 445	mm ² /s	1 - 6
Explosion limits		%	0.6-6.5
Solubility in water		g/l	<0.02
Partition Coefficient (noctanol/water)		Log ₁₀ pow	>3

10)STABILITY AND REACTIVITY

Stable at ambient temperatures. Hazardous polymerisation reactions will not occur.

Conditions to Avoid: Sources of ignition.

Materials to Avoid: Avoid contact with strong oxidising agents.

Hazardous Decomposition Products: Thermal decomposition products will vary with conditions. Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide.

11)TOXICOLOGICAL INFORMATION

Eyes: Unlikely to cause more than transient stinging or redness if accidental eye contact occurs

Skin: Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated contact may lead to dermatitis. As with all such products containing harmful levels of PCAs, prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders including cancer.

Ingestion: Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea. Will injure the lungs if aspiration occurs, eg. during vomiting.

Inhalation: May cause irritation to eyes, nose and throat due to exposure to vapour, mists or fumes.

12)ECOLOGICAL INFORMATION

Mobility: Spillage may penetrate the soil causing groundwater contamination. This product may accumulate in sediments.

Persistence and degradability: This product is inherently biodegradable.

Bioaccumulative potential: There is no evidence to suggest that bioaccumulation will occur.

Aquatic toxicity: Toxic to aquatic organisms. May cause long term effects in the aquatic environment. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

German WGK Classification: 2

13)DISPOSAL CONSIDERATIONS

Dispose of via an authorised person/licensed waste disposal contractor in accordance with local regulations. Dispose of product and container carefully and responsibly. Do not dispose of near ponds, ditches, down drains or into the soil. Empty packages may contain some remaining product. Hazard warning labels are a guide to the safe handling of empty packaging and should not be removed.

14)TRANSPORT INFORMATION

ADR/RID: Gas Oil, Flammable Liquid, Class 3, Item 31 (c), Hazard Identification No 30

UN: GAS OIL, Flammable liquid, Class 3, Packing Group III, UN number 1202

IATA/CAO: Gas Oil, Flammable liquid, Class 3, Packing Group III

IMO: GAS OIL, Flammable liquid, Class 3.3, Packing Group III

EMERGENCY ACTION CODE: Flammable liquid, 3[Z]

15)REGULATORY INFORMATION

EU Category of Danger: Carcinogenic category 3 Harmful

EU Labelling: Symbol: St. Andrew's Cross Indication of Danger: HARMFUL

Contains: Fuels, Diesel

Risk (R) Phrases: R40 Possible risks of irreversible effects R65 Harmful: May cause lung damage if swallowed.

Safety (S) Phrases: S2 Keep out of reach of children S24 Avoid Contact with skin R36/37 Wear protective clothing and gloves S43 In case of fire use foam/dry powder/CO2. Never use water jets S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label S61 Avoid release into the environment. Refer to special instructions/Safety data sheets.

16)OTHER INFORMATION

Complied by: George J. Goff Ltd. 297 Aylsham Road Norwich NR3 2RH

This data sheet and the health, safety and environmental information it contains is considered to be accurate as of the date 10th July 1998.

However, no warranty or representation, express or implied is made as to the accuracy or completeness of the data and information contained in this data sheet. Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations concerning such. No statement made in this data sheet shall be construed as a permission, recommendation or authorisation given or implied to practise any patented invention without a valid licence. George J. Goff Ltd shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material.

10th July 1998