

SAFETY DATA SHEET	SDS N°001 (available on www.rofafrance.com)
	Number of page : 5
ROFA FRANCE	Revision: 06
DIESEL FUEL	Date: 02 01 2020
	Replace version dated: 2018

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

- 1.1. Product identifier: Product name "Diesel". EC N° 269-822-7 / CAS N° 68334-30-5
- 1.2. Relevant identified uses of the substance or mixture: SU3 - Industrial Use. For calibration of laboratories analysers.
- 1.3. Details of the supplier of the safety data sheet: ROFA FRANCE - 7 Zone Artisanale Béton Ouest – 25160 Oye-Et-Pallet – France Tel +33 3 81 69 75 47
- 1.4. Emergency telephone number Emergency phones: ORFILA / Tel : 01.45.42.59.59 / Carechem 24 International. For English speaking countries +44(0)1235239670 / Europe (in local languages) +33149000049 / Africa and Middle East +44(0)1235239671 +China 861051003039.

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture. REGULATION (EC) No 1272/2008 *For the full text of the H-Statements mentioned in this Section, see Section*

Classification: Flammable liquids - Category 3 // Aspiration toxicity - Category 1 // Skin corrosion/irritation - Category 2 // Carcinogenicity - Category 2 // Specific target organ systemic toxicity (single exposure) - Category 2 // Chronic aquatic toxicity - Category 2 // DIRECTIVE 67/548/EEC or 1999/45/EC. *For the full text of the R-phrases mentioned in this Section, see Section 16.*

Classification
Carc. cat. 3; R40-Xn – R20-Xn - R38 - N;R51-53

2.2. Label elements: Labelled according to: REGULATION (EC) No 1272/2008 (CLP)



Hazard Statements	Precautionary statements
H226 - Flammable liquid and vapor H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H332 - Harmful if inhaled H351 - Suspect of causing cancer H373 - May cause damage to organs with prolonged exposure H411 - Toxic to aquatic life with long lasting effects	P201 – Obtain special instructions before use P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P243 – Take precautionary measures against static discharge. P260 – Do not breathe dusts or mists. P301+P330 - IF SWALLOWED: rinse mouth. P331 - Do NOT induce vomiting P303+P361+P353 – If on skin (or hair): take off all contaminated clothing. P304+P340 – If inhaled: remove person to fresh air. P314 – Get medical advice / attention if you feel unwell. P403 + P235 - Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

Physical-Chemical Properties: Product may form flammable mixture with the air when heated above the flash point. In the presence of hot spots, there is a special risk of fire or explosion under certain conditions accidental release of vapor or leaks of product under pressure.

Properties Affecting Health Prolonged or repeated contact may cause skin irritation. Vapors or mists are irritating to mucous membranes, particularly the eyes. May cause central nervous system depression with nausea, headache, dizziness, vomiting and incoordination. If swallowed accidentally, the product may enter the lungs due to low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours).

Environmental properties: Toxic to aquatic organism, may cause long-term adverse effects in the aquatic environment. Should not be release in the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

Chemical nature: Diesel fuels. A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon chain lengths predominantly in the range of C9 to C20 and boiling in the range of approximately 163°C to 357°C. Contains mixture of C16-C18 methyl ethers.

Hazardous components

Chemicals Name	EC-N°	Reach Registration Number	CAS-N°	Weight %	Classification according to Regulation (EC) N°. 1272/2008 (CLP)
Fuels, Diesel	269-822-7	01-2119484664-27	68334-30-5	> 90	Flam. Liq. 3 (H226) Acute Tox. 4 (H332) Carc. 2 (H351) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) STOT RE 2 (H373) Aquatic Chronic 2 (H411)

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4. FIRST AID MEASURES

4.1 Description of first aid measures

General: in case of serious or persistent conditions, consult a doctor or call for emergency medical aid.

Inhalation: in case of exposure to intense concentrations of vapours, fumes or spray, transport the person away from the contaminated zone, keep warm and allow to rest. Possible irritation of the respiratory tract and mucous membranes. If breathing has stopped, apply artificial respiration.

Ingestion: consult a doctor. Don't induce vomiting to avoid the risk of aspiration into the respiratory tract. Allow the person to rest. Possible risk of vomiting and diarrhoea.

Skin contact: immediately remove all the soiled or stained clothing. Wash immediately and abundantly with soap and water. If the skin is exposed to high pressure spray, the product may enter the human body. In all such the effect person must be taken to hospital, even if no sign of injury can be detected.

Eyes contact: Wash immediately in copious amounts of water, keeping eyelids apart for at least 15 minutes and consult a specialist.

Aspiration: aspiration of the liquid into the lungs is extremely dangerous (acute lung conditions). If the product is believed to have entered the lungs (in case of vomiting, for example), take the person to hospital for immediate care.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Inhalation of vapors in high concentration may cause irritation of respiratory system. May cause central nervous system depression with nausea, headache, dizziness, vomiting and incoordination.

Ingestion: ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May cause central nervous system depression. Harmful if swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).

Skin contact: May cause skin irritation and/or dermatitis.

Eyes contact: May cause slight irritation.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media: suitable: Foam, CO₂, powder, Dry powder. Sand or earth. Large fires: foam, water fog (trained personnel).

- not recommended: Solid water streams are prohibited as they could help to spread the flames. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2 Specific hazards: Incomplete combustion and thermolysis produce gases of varying toxicity such as CO, CO₂, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled. Special care must be taken to avoid the risk of explosion. When the temperature is close to the flash point, the vapour pressure is so high that it may create an explosive atmosphere above the stored product.

5.3 Protective measures for fire-fighters: In case of a large or confined or poorly ventilated spaces wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Cool down any tanks and surfaces exposed to fire by spraying abundantly with water. Don't allow run-off from fire fighting to enter drains and water courses..

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal protections: As applicable in view of the risk of exposure, wear hydrocarbon-resistant protective clothing, a mask (if inhaling is a risk), gloves, goggles, and boots.

After spillage & leakage: do not allow to penetrate into sewers, rivers and ground water. Cover discharges with foam in order to reduce the risks of ignition. In case of spillage, contact the competent authorities if the situation cannot be brought under control rapidly and efficiently.

6.2 Spill cleaning procedures: *Recovery:* use mechanical means such as pumps, skimmers and absorbent materials. Never use dispersing agents. Contain and collect the spilled product with the sand or any other inert absorbent material. Preserve the waste in closed and sealed recipients. *Elimination:* hand over contaminated materials to an approved collector.

Prevention of secondary risks: remove all sources of ignition.

7. HANDLING AND STORAGE

7.1 Handling: *Prevention of user exposure:* prevent the formation of vapours, mist and aerosols. Handle in well-ventilated premises. Keep the product away from food and beverages. Operations involving the inspection, cleaning and maintenance of storage containers require the application of strict procedures and must be entrusted to qualified specialist personal only. Do not smoke, avoid inhaling vapours. Avoid contact with the skin and mucous membranes. Never attempt to prime the container siphon by sucking with the mouth. Wear suitable protection and protective clothing. Never weld, drill, grind, cut or saw any empty container. *Prevention of fire and explosion:* arrange machinery and equipment so as to prevent the sheet of burning product from spreading (retention pits and basins, siphons in the water drainage system). Handle away from any source of ignition (open flame and sparks) and heat (hot manifolds or casing). Don't use compressed oxygen or air when transferring or pouring the products. Operate only on cold and degassed reservoirs in ventilated premises (to avoid risk of explosion). *Precautions;* loading and unloading must be carried out at room temperature. To prevent risks related to static electricity build-up, ensure that machinery, equipment, truck and tanks properly earthed, prohibit charging in the rain and ensure that the product is poured slowly. Particularly at the beginning of the operation. Avoid extended and repeated contacts with the skin as these can cause skin ailments aggravated by small injuries or friction on soiled clothing. Remove any soiled or splashed immediately. After contact with skin, wash immediately with plenty of water and soap. Avoid breathing in vapours, fumes or fogs. Don't eat or drink or smoke during use. Avoid contact with strong oxidising agents. Use only hydrocarbon-resistant containers, joints, pipes, etc.

7.2 Storage: *Technical measures:* prevent any build-up of static electricity. Make the necessary arrangements to prevent water and soil pollution. Don't withdraw labels of the containers (even if they are empty). *Storage precautions;* Suitable- Store packaged (drums, samples, cans, etc) in well ventilated areas. Store at room temperature, away from water, moisture, heat, and any source of ignition. To be avoided – Don't not exposed to the elements.

Incompatible products: dangerous reaction when in contact with strong oxidizers (herbicides, etc).

Packing materials: Recommended – Use only hydrocarbon resistant containers, joints, pipes, etc.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

DNEL WORKER / Professional

Chemical name	Short term systemic effects	Short term local effects	Long-term systemic effects	Long-term local effect
Combustible disels 68334-30-5	4300 mg/m ³ /15min (inhalation))	2.9 mg/m ³ /8 hours (dermal) 68 mg/m ³ /8h (inhalation, aerosol)	

DNEL Consumer

Chemical name	Short term systemic effects	Short term local effects	Long-term systemic effects	Long-term local effect
Combustible disels 68334-30-5	2600 mg/m ³ /15min (inhalation))	1.3 mg/m ³ /24hours (dermal) 20 mg/m ³ /24h (inhalation, aerosol)	

8.2 Exposure controls

Technical measures: Use the product in a properly ventilated atmosphere. When working in confined spaces (tanks, containers, rooms, etc.) ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Occupational exposures limit: In France None, In USA, TLV_TWA (Diesel fuel) 100 mg/m³.

Reference: ACGIH.

Respiratory protection: In confined premises, protective respiratory equipment may need to be used.

Hand protection: Impermeable hydrocarbon-proof gloves. In case of splashes or limited contact: a recommended material is neoprene > 0.5mm, PVC 0.2 mm of liquid-proof material > 60 minutes (EN 374-3). In case of prolonged or repeated contact: recommended material Fluoro polymer, PVA, all layer thickness, Nitrile > 0.3 mm, neoprene > 480 minutes (EN 374-3). For more precise details about the choice of the appropriated glove, please contact the manufacturers of protective gloves.

Eyes protection: Goggles, in case of risk of splashing.

Skin and body: Face mask, boots, hydrocarbon-proof clothing and safety boots, as applicable.

Hygienic work practices: Avoid contact with the skin. If the product comes into contact with the skin, wash the affected area immediately and copiously with soap and water. In case of contact with eyes, wash immediately in copious amounts of water while keeping eyelids spread apart for at least 15 minutes and consult a specialist.

Eye protection / Skin and body protection / Respiratory protection.



9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid / Colour: Yellow / Odour: Characteristic / Specific gravity: 800 – 910 kg/m³ at 15°C / Flash Point: >55°C / Temperature of auto-ignition: >= 250°C / Comments on auto-ignition temperature: this value may be significantly lower in the case of contact with potentially catalytic material (metals like copper, strongly divided materials). / Lower flammability limit: 0.5 % / Upper flammability limit: 5% / Comments on explosion: explosives mixtures may be formed in contact with air. / Temperature at phase change: Initial distillation point >= 150°C, Distillation range point: about 150-380 °C / Density Vapour: >5 (air =1) / Vapour pressure <100 hPa at 100°C - < 10 hPa at 40 °C / Solubility in water: practically immiscible. Solubility in organic solvents: soluble in many common solvents / Partition coefficient: Log Pow = 3,9 – 6 / Viscosity: < 7 mm²/s at 40 °C / Further information; pH not applicable.

10. STABILITY AND REACTIVITY

10.1 Reactivity: flammable liquid and vapour.

10.2 Stability: The product is stable at normal storage, and ambient temperatures

10.3 Conditions to avoid: heat, sparks, ignition points, flames, static electricity, etc..

10.4 Materials to avoid: Strong oxidising agents,

10.5 Hazardous decomposition products: Incomplete combustion and thermolysis produces potentially toxic gases such as CO, CO², various hydrocarbons, aldehydes, hydrocarbon mixture, and soot.

11. TOXICOLOGICAL INFORMATION

FUELS, DIESEL (68334-30-5)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 4.1 mg/l/4h

Acute toxicity / Local effects: Inhalation, comments - Strong concentration of vapours, mist or spray may be irritating for the respiratory tract and for mucous.

Skin contact: Not classified.

Eye contact: Not classified as irritating, but may cause a burning feeling and temporary reddening.

Ingestion: Harmful, if swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey of 72 hours required).

Chronic toxicity or long term toxicity:

Skin contact: prolonged or repeated contact with the skin destroys the lipo-acid skin layer and may cause dermatitis with the risk of secondary allergies.

Sensitization: Not classified as allergenic.

Carcinogenicity: Possible risks of irreversible effects. Certain tests on animals have shown a development of malignant skin tumours.

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12. ECOLOGICAL INFORMATION

Eco-toxicology: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (CONCAWE recommendation)

According regulation (EC) N°1907/2006 – LC50 Fisch >3.2 mg/l – EC50 Daphania 1 >5.3 mg/l – ErC50 (algae) >2.9 mg/l.

Air: having low volatility at room temperature, the product evaporates in the atmosphere and disperses to a degree, depending on local conditions.

Soil: the product may infiltrate the ground.

Water: the product spreads on the surface of the water. A small amount may dissolve.

Persistence and degradability: The majority of the components to the product are intrinsically biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste disposal: the recommended method is recycling or incineration at an approved installation.

Disposal of contaminated packaging: empty packaging may contain flammable or explosive vapours. Disposal must be done via authorised waste contractor.

National regulations: Storage of liquid hydrocarbons – decree of the 09.11.1972 (JO 31.12 1972) – decree of 19.11.1975 (JO 23.01.1976) – circular of 04.12.1975 (JO 23.01.1976). When cleaning tanks, the disposal of sludge is to be carried out in compliance with regulations concerning waste – law N°75-633 of 15.07.1975 (JO 16.07.1975). Waste classification – decree 2002-540 of April 18, 2002.

14. TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN Number	1202	1202	1202	1202
14.2. UN proper shipping name	GAS OIL	GAS OIL	DIESEL FUEL	GAS OIL
Transport document description				
UN 1202 GAS OIL, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1202 GAS OIL, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1202 Gas oil, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1202 DIESEL FUEL, 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1202 GAS OIL, 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)	3	3	3	3
14.4. Packing Group	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine Pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6 Classification code (ADR) F1 / Special provisions (ADR) 640M, 363, 664 / Limited quantities (ADR) 51 / Excepted quantities (ADR) E1.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulation/ legislation/legislation specific for the substance or mixture.

15.1.1 EU-Regulations / no REACH annex XVII restrictions / Diesel is not REACH candidate List & annex XIV List.

15.1.2 National regulations / Listed on the EEC inventory EINECS / Complies the United States TSCA / Listed on Korean ECL / on Canadian DSL / on the AICS (Australian) / on the Philippines PICCS / on the China inventory IECSC / on NZIoC (New Zealand).

European Union: REACH – this substance has been registered according Regulation (EC) N° 1907/2006 (REACH)

15.2 Chemical safety assessment: a chemical safety assessment has been carried out.

16. OTHER INFORMATION

Explanations of R-phrases in section 2:

R-20 Harmful by inhalation.

R-38 Irritating to skin.

R-40 Limited evidence of a carcinogen effect.

R-65 Harmful: may cause lung damage if swallowed.

R-51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T2
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Hazard identification number (Kemler No.)	: 30
Orange plates	:
Tunnel restriction code (ADR)	: D/E
EAC code	: 3Y
- Transport by sea (IMDG)	
Special provisions (IMDG)	: 363
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03

Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Storage category (IMDG)	: A
- Air transport (IATA)	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L
- Inland waterway transport	
Classification code (ADN)	: F1
Special provisions (ADN)	: 363, 64M
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

- Rail transport	
Classification code (RID)	: F1
Special provisions (RID)	: 363, 640M
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19

This safety sheet complies with the requirements of Regulation (EC) N° 1907/2006 and its amended Regulation (EU) 2015/830

It is the responsibility of the person receiving the product to refer to the totality of the official documents concerning the use, the possession and the handling of the product. It is also the responsibility of the handlers of the products to pass to any subsequent persons who will come into contact with the product.

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1. Exposure scenario

Description of uses

Sector of use

SU3 - Industrial Use. For calibration of laboratories analysers

Process category

PROC1 - Use in closed system, no probability of exposure

Environmental release category

ECR7 - Industrial use of substances in closed systems

1. Operational conditions and risk management measures

2.1 Control of environmental exposure

Product Features

The substance is mainly hydrophobic UVCB

Amounts used

250ml to 1000ml per test

Environmental factors that are not influenced by risk management

Local dilution factor in fresh water: 10

Technical conditions and process-level measures to prevent emissions

Current practices vary between sites and laboratories, so conservative process release estimates are used.

Conditions and measures for external treatment of waste for disposal

The treatment and external feeding of waste must comply with applicable local and / or national regulations.

2.2 Control of workers' exposure

Product Features

Physical state

Liquid, vapour pressure 0.5 - 10 kPa at normal temperature and pressure

Frequency of use

Covers daily exposures according to the pace of analyses performed

Other operational conditions affecting exposure

Assumes use according to the conditions of analysis standards used. Assumes a good level of occupational hygiene is observed

2.2a Control of workers' exposure

Participating scenarios	Operational conditions and risk management measure
General measures (skin irritants) General measures (skin irritants)	Avoid direct contact with the skin. Identify the areas of skin in direct contact with the product. Wear gloves (tested according to EN374) if the hands are likely to be in contact with the substance. Clean up any skin contamination immediately. Immediately wash away any skin contamination. Provide basic staff training to avoid / reduce exposures and report any skin problems that may develop later
General exposures (Closed systems)	No other specific measures identified
General exhibitions (Open systems)	No other specific measures identified
Sampling	No other specific measures identified
Laboratory activities	No other specific measures identified
Filling small containers	No other specific measures identified
Equipment cleaning	No other specific measures identified
Storage of bulk products	No other specific measures identified

3. Exposure assessment and reference

Health

The ECETOC Risk Assessment Tool (TRA) was used to assess the risk of exposure in the workplace (unless otherwise indicated)

Environment

The hydrocarbon block method was used to calculate the environmental exposure rate with the Petrorisk model

4. Guide to compliance with the exposure scenario for downstream users (DU)

Health

The available hazard data do not allow the derivation of a DNEL for the risk of skin irritation. Management measures are established based on a qualitative characterization on health. The available hazard data do not require the establishment of a DNEL for health risks. Users are advised to take into account the national occupational exposure limit values or other equivalent values. In the event that other risk management measures / operational conditions are adopted, users must ensure that the risks are controlled at least equivalent levels.

Environment

The advice provided is based on assumed operating conditions, which may not apply to all sites, so scaling may be necessary to define appropriate site-specific risk management measures. To achieve the necessary air removal efficiency, use on-site technologies. More details on control and scaling technologies are provided in the SpERC data sheet. More information on scaling and control technologies is available on the SpERC fact sheet (<http://cefic.org/en/reach-for-industries-libraries.html>)

