

SAFETY DATA SHEET

Diesel, Certified Reference Materials

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name

Diesel, Certified Reference Materials

Product no.

SWS-PMCC10, CRM-PMGO01, CRM-DEGO01, CRM-DIGO01, CRM-CPGO01, CRM-CFGO01, CRM-PPGO01

Other means of identification

Index No.: 649-224-00-6

EC No.: 269-822-7

CAS No.: 68334-30-5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses of the substance or mixture

Laboratory use

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

ARO Scientific Ltd

Unit 1 Bridgeway Business Park,

Ditton Road

WA8 0QE Widnes

England

+44 (0)151 424 2828

Contact person

Technical Help

E-mail

technical@aroscientific.com

Revision

06/10/2023

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Flam. Liq. 3; H226, Flammable liquid and vapour.

Asp. Tox. 1; H304, May be fatal if swallowed and enters airways.

Skin Irrit. 2; H315, Causes skin irritation.

Acute Tox. 4; H332, Harmful if inhaled.

Carc. 2; H351, Suspected of causing cancer.

STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

Aquatic Chronic 2; H411, Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Flammable liquid and vapour. (H226)
 May be fatal if swallowed and enters airways. (H304)
 Causes skin irritation. (H315)
 Harmful if inhaled. (H332)
 Suspected of causing cancer. (H351)
 May cause damage to organs through prolonged or repeated exposure. (H373)
 Toxic to aquatic life with long lasting effects. (H411)

Precautionary statement(s)

General

-

Prevention

Obtain special instructions before use. (P201)
 Do not breathe vapour/mist. (P260)

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. (P301+P310)
 Get medical advice/attention if you feel unwell. (P314)

Storage

Store in a well-ventilated place. Keep cool. (P403+P235)

Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

Fuels, diesel;Gasoil - unspecified;[A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C20 and boiling in the range of approximately 163 °C to 357 °C (325 °F to 675 °F).]

Additional labelling

Not applicable.

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product/substance	Identifiers	% w/w	Classification	Note
Fuels, diesel;Gasoil - unspecified;[A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C20 and boiling in the range of approximately 163 °C to 357 °C (325 °F to 675 °F).]	CAS No.: 68334-30-5 EC No.: 269-822-7 UK-REACH: Index No.: 649-224-00-6	95-100%	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Acute Tox. 4, H332 Carc. 2, H351 STOT RE 2, H373 Aquatic Chronic 2, H411	[19]

3.2. Mixtures

Not applicable. This product is a substance.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do not induce vomiting! If vomiting occurs, keep head facing down so that vomit does not get into the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have swallowed the product should therefore be kept under medical attention for at least 48 hours.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

4.2. Most important symptoms and effects, both acute and delayed

This product contains substances that can cause chemical pneumonia if swallowed. Symptoms of chemical pneumonia may appear after several hours.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Flammable liquid and vapour.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Hazchem Code: 3Y

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

Contaminated areas may be slippery.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/lighting/ventilating] equipment.

Use non-sparking tools.

Take action to prevent static discharges.

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid direct contact with the product.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Take action to prevent static discharges.

Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material

Keep only in original packaging.

Storage temperature

5 - 30°C

Incompatible materials

Strong oxidizing agents

Strong acids

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

Fuels, diesel; Gasoil - unspecified; [A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C20 and boiling in the range of approximately 163 °C to 357 °C (325 °F to 675 °F).]

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	1.25 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	2.91 mg/kg bw/day

Short term – Systemic effects - General population	Dermal	5.55 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	11.11 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	20.22 mg/m ³
Long term – Systemic effects - Workers	Inhalation	68.34 mg/m ³
Short term – Systemic effects - General population	Inhalation	2572.8 mg/m ³
Short term – Systemic effects - Workers	Inhalation	102.7 ng/m ³
Long term – Systemic effects - General population	Oral	1.25 mg/kg bw/day

PNEC

Fuels, diesel;Gasoil - unspecified;[A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C20 and boiling in the range of approximately 163 °C to 357 °C (325 °F to 675 °F).]

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		21 µg/L

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Do not recirculate outlet air that contain the substances.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Work situation	Type	Class	Colour	Standards
In case of inadequate ventilation	No special when used as intended.			

Skin protection

Recommended	Type/Category	Standards
Wear appropriate protection clothing, e.g. coveralls in polypropylene or working clothes in cotton or polyester.	-	-



Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0,38	> 480	EN374-2, EN374-3, EN388



Eye protection

Work situation	Type	Standards
When there is risk of splash- / intermittent exposure	In the likelihood of direct or incidental exposure, use face protection.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Yellowish

Odour / Odour threshold

Characteristic

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

Not applicable - based on structure

Relative density

Not applicable - based on structure

Kinematic viscosity

2 centistokes (20 °C)

Particle characteristics

No data available

Phase changes

Melting point/Freezing point (°C)

No data available

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

No data available

Vapour pressure

Testing not relevant or not possible due to the nature of the product.

Relative vapour density

No data available

Decomposition temperature (°C)

No data available

Data on fire and explosion hazards

Flash point (°C)

>56°C (133°F)

Flammability (°C)

The material is ignitable.

Auto-ignition temperature (°C)

>250°C (482°F)

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to the nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to the nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Sensitivity to shock

No

Evaporation rate (n-butylacetate = 100)

No data available

Oxidizing properties

None

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources.

10.5. Incompatible materials

Strong oxidizing agents

Strong acids

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Harmful if inhaled.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Long term effects

Carcinogenic effects: This product contains substances considered or proven to be carcinogenic. The carcinogenic effects may be triggered subsequent to exposure through inhalation, skin contact or ingestion.

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.

Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

This mixture/product does not contain any substances considered to have hormone-disrupting properties in relation to health.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

Waste treatment methods

Product is covered by the regulations on hazardous waste. (*)

HP 3 - Flammable

HP 4 - Irritant (skin irritation and eye damage)

HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

HP 6 - Acute toxicity

HP 7 - Carcinogenic

HP 14 - Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

13 07 01* Fuel oil and diesel

Specific labelling

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1202	DIESEL FUEL	Transport hazard class: 3 Label: 3 Classification code: F1  	III	Yes	Limited quantities: 5 L Tunnel restriction code: (D/E) See below for additional information.
IMDG	UN1202	DIESEL FUEL	Transport hazard class: 3 Label: 3	III	Yes	Limited quantities: 5 L

14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
		Classification code: F1  			EmS: F-E S-E See below for additional information.
IATA	UN1202 DIESEL FUEL	Transport hazard class: 3 Label: 3 Classification code: F1  	III	Yes	See below for additional information.

* Packing group

** Environmental hazards

Additional information

ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: 3Y

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

E2 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 200 tonnes / (upper-tier): 500 tonnes

Additional information

Not applicable.

Sources

The Management of Health and Safety at Work Regulations 1999.

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as

retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H226, Flammable liquid and vapour.

H304, May be fatal if swallowed and enters airways.

H315, Causes skin irritation.

H332, Harmful if inhaled.

H351, Suspected of causing cancer.

H373, May cause damage to organs through prolonged or repeated exposure.

H411, Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the mixture in regard to physical hazards has been based on experimental data.

The safety data sheet is validated by

Technical Help

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en