CALDO OILS LIMITED

Material Safety Data Sheet

C1 Kerosene/Premium Paraffin

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

1.1. Product identifier

Product name	C1 Kerosene/Premium Paraffin
Product number	035/036/037
Internal identification	036
Synonyms; trade names	Kerosine (petroleum), sweetened
REACH registration number	01-2119502385-46-0014
CAS number	91770-15-9
EC number	294-799-5

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

Identified uses	The following uses are addressed through the Chemical Safety Report (CSR) and Generic Exposure Scenario (GES) library: Manufacture of substance Distribution of substance Use of substance as intermediate Formulation & (re)packing of substances and mixtures Uses in coatings Use in cleaning agents Lubricants Use in metal working fluids / Rolling oils Use of release agents or binders Agrochemical uses Use as a fuel Use as a functional fluid Road and construction applications Explosive manufacture & use
Uses advised against	This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above

1.3. Details of the supplier of the safety data sheet

Supplier	Caldo Oils Ltd Head Office - Worsley Brow, Sutton StHelens Merseyside. WA9 3EZ United Kingdom +44(0)1744 813535 +44(0)1744 816031
Contact person	info@caldo.co.uk

1.4. Emergency telephone number

Emergency telephone	Please contact SHE Department on +44(0) 1744 813535

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 3 - H226
Health hazards	Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304

C1 Kerosene/Premium Paraffin

Environmental hazards Aquatic Chronic 2 - H411

Classification (67/548/EEC or 1999/45/EC) Xn;R65. Xi;R38. N;R51/53. R10.

2.2. Label elements

EC number 294-799-5

Pictogram

Signal word Danger

Hazard statements
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take precautionary measures against static discharge.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P501 Dispose of contents/ container in accordance with national regulations.

Supplementary precautionary statements
P240 Ground/ bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P273 Avoid release to the environment.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P391 Collect spillage.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name C1 Kerosene

REACH registration number 01-2119502385-46-0014

C1 Kerosene/Premium Paraffin

CAS number	91770-15-9
EC number	294-799-5
Composition comments	UVCB Substance

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Inhalation	Remove affected person from source of contamination. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
Skin contact	Skin irritation.
Eye contact	No specific symptoms known.

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

Notes for the doctor	Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. The product is flammable.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Use water to keep fire exposed containers cool and disperse vapours. Control run-off water by containing and keeping it out of sewers and watercourses.

C1 Kerosene/Premium Paraffin

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material. Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if safe to do so. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Contain and absorb spillage with sand, earth or other non-combustible material. Collect spillage with a shovel and broom, or similar and reuse, if possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid the formation of mists. Avoid inhalation of vapours and spray/mists.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store in a demarcated bunded area to prevent release to drains and/or watercourses.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

DNEL Consumer - Oral; Long term systemic effects: 19 mg/kg/day

PNEC No PNEC available
Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls This product must not be handled in a confined space without adequate ventilation.

C1 Kerosene/Premium Paraffin

Eye/face protection	The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Hand protection	The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. To protect hands from chemicals, gloves should comply with European Standard EN374.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures	Provide eyewash station. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Do not smoke in work area.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Clear liquid.
Odour	Slight.
Melting point	Scientifically unjustified. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Initial boiling point and range	160-265°C @ 760 mm Hg
Flash point	>23°C CC (Closed cup).
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 0.6 Upper flammable/explosive limit: 7.0
Vapour pressure	<1-3.7 kPa @ 37.8°C
Relative density	0.775 @ 15°C
Solubility(ies)	No information required. Insoluble in water. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Partition coefficient	No information required. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance. Substance is a UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Auto-ignition temperature	>220°C Method: ASTM E659
Viscosity	1 - 2.5 cSt @ 40°C Method: ISO 3104
Explosive properties	Not explosive According to Reach Annex VII end point 7.11, the study does not need to be conducted if there are no chemical groups associated with explosive properties present in the molecule. This is the case for this substance.

C1 Kerosene/Premium Paraffin

Oxidising properties	No information required. In accordance with column 2 of REACH Annex VII, the study does not need to be conducted because on the basis of its chemical structure, the substance is incapable of reacting exothermically with combustible materials.

9.2. Other information

Particle size	Technically not feasible. N/A In accordance with column 2 of REACH Annex VII, the particle size distribution study (granulometry) does not need to be conducted because the substance is not marketed or used in any solid or granular form.
Molecular weight	ca. 182

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products	Heating may generate the following products: Oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	5,000.0
Species	Rat
Notes (oral LD_{50})	OECD 420 Conclusive data but not sufficient for classification.

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,000.0
Species	Rabbit
Notes (dermal LD_{50})	OECD 402 Conclusive data but not sufficient for classification.

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	5.28

C1 Kerosene/Premium Paraffin

Species	Rat
Notes (inhalation LC_{50})	OECD 403 Conclusive data but not sufficient for classification.
ATE inhalation (vapours mg/l)	5.28

Skin corrosion/irritation

Animal data	Erythema/eschar score: Moderate to severe erythema (3). Oedema score: Slight oedema - edges of area well defined by definite raising (2). EPA Guidelines Irritating.
Human skin model test	Not available.
Extreme pH	Non Corrosive to skin.

Serious eye damage/irritation

Serious eye damage/irritation	Not irritating.

Respiratory sensitisation

Respiratory sensitisation	This endpoint is not a REACH requirement There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation	Buehler test: - Guinea pig: OECD 406 Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	Gene mutation:: Negative. Method: ASTM E1687 This substance has no evidence of mutagenic properties.
Genotoxicity - in vivo	Chromosome aberration: Negative. OECD Guideline 475 This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity	LOAEL 200 mg/kg, Dermal, Method equivalent to OECD 451 Kerosine is not carcinogenic when animals are exposed via the oral or inhalation route. However, chronic skin contact with kerosines and jet fuel may lead to tumour formation as a consequence of repeated cycles of irritation, skin damage and repair (similar to OECD 451)
Target organ for carcinogenicity	Skin

Reproductive toxicity

Reproductive toxicity - fertility	Fertility: - NOAEL >3000 mg/kg, Oral, Rat OECD Test Guideline 421 This substance has no evidence of toxicity to reproduction.
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 1000 mg/kg, Oral, Method OECD 414 This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	NOAEL 750 mg/kg, Oral, Rat

Aspiration hazard

Aspiration hazard	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

SECTION 12: Ecological Information

Ecotoxicity Dangerous for the environment.

12.1. Toxicity

C1 Kerosene/Premium Paraffin

Acute toxicity - fish	LC50, 96 hours: 18 mg/l, Onchorhynchus mykiss (Rainbow trout) OECD 203
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 21 mg/l, Daphnia magna OECD 202
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 3.7 mg/l, Selenastrum capricornutum OECD 201
Acute toxicity - microorganisms	, 72 hours: 677.9 mg/l, LL50 Tetrahymena pyriformis Estimated using PETROTOX computer model
Acute toxicity - terrestrial	Technically not feasible. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Chronic toxicity - fish early life stage	, 28 days: 0.098 mg/l, Onchorhynchus mykiss (Rainbow trout) NOEL Estimated using PETROTOX computer model
Chronic toxicity - aquatic invertebrates	EC_{50}, 21 days: 0.89 mg/l, Daphnia magna OECD 211
Toxicity to soil	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.
Toxicity to terrestial plants	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

12.2. Persistence and degradability

Phototransformation	No information required. This endpoint is not a REACH requirement
Stability (hydrolysis)	Scientifically unjustified. The available data and weight of evidence demonstrate that this substance is resistant to hydrolysis because it lacks a functional group that is hydrolytically reactive. Therefore, this fate process will not contribute to a measurable degradable loss of this substance from the environment.
Biodegradation	Water - Degradation (%) 58.6: 28 days Supporting study Test - 301F Ready Biodegradability - Manometric Respiratory Test Inherently biodegradable, not fulfilling specific criteria.

12.3. Bioaccumulative potential

Bioaccumulative potential	Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Partition coefficient	No information required. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance. Substance is a UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

12.4. Mobility in soil

Mobility	The product is insoluble in water and will spread on the water surface.
Adsorption/desorption coefficient	No information required. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

C1 Kerosene/Premium Paraffin

Henry's law constant	Not available. Volatilisation is dependent on Henry's Law constant (HLC) which is not applicable to complex substances.
Surface tension	Scientifically unjustified. In line with REACH Annex VII, data on surface tension is not required, as based on structual considerations, surface activity is not expected or predicted, and surface activity is not a desired property of the material.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects	None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Avoid the spillage or runoff entering drains, sewers or watercourses.
Waste class	This material and container must be disposed of as a HAZARDOUS WASTE.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1223
UN No. (IMDG)	1223
UN No. (ICAO)	1223
UN No. (ADN)	1223

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	KEROSENE
Proper shipping name (IMDG)	KEROSENE
Proper shipping name (ICAO)	KEROSENE
Proper shipping name (ADN)	KEROSENE

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

C1 Kerosene/Premium Paraffin

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

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

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Dangerous Substances Directive 67/548/EEC. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	Minor changes made
Issued by	HCS Group Technical Team

C1 Kerosene/Premium Paraffin

Revision date	09/08/2016
Revision	8
Supersedes date	21/07/2015
SDS number	20569
SDS status	Approved.
Risk phrases in full	R10 Flammable. R38 Irritating to skin. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed.
Hazard statements in full	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.