

SAFETY DATA SHEET**C1 Kero Dyed Blue**

According to Regulation (EC) No 1907/2006, Annex II, as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product name	C1 Kero Dyed Blue
Product number	2011108
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 Use as a fuel (Industrial, Professional, Consumer)
Uses advised against	Use only for intended applications.

1.3. Details of the supplier of the safety data sheet**Supplier**

Haltermann Carless UK Ltd
Head Office - Grove House, Guildford Road, Leatherhead, Surrey KT22 9DF United Kingdom
+44(0)1372 380400
+44(0)1372 360000

Contact person MSDSTeam@h-c-s-group.com

Manufacturer

Haltermann Carless UK Ltd
Head Office - Grove House, Guildford Road, Leatherhead, Surrey KT22 9DF United Kingdom
+44(0)1372 360000
+44(0)1372 380400

1.4. Emergency telephone number

Emergency telephone Please contact SHE Department on +44(0) 1255 502372

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (EC 1272/2008)**

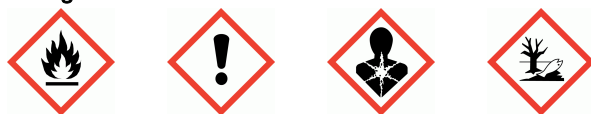
Physical hazards	Flam. Liq. 3 - H226
Health hazards	Skin Irrit. 2 - H315 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 2 - H411

2.2. Label elements

EC number 294-799-5

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Pictogram



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
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.
P273 Avoid release to the environment.
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

P233 Keep container tightly closed.
P240 Ground/ bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P264 Wash contaminated skin thoroughly after handling.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
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+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 Kero Dyed Blue
REACH registration number	01-2119502385-46-0014
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.
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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.
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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.
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.
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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.
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6.3. Methods and material for containment and cleaning up

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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.

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 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.

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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	Blue.
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	47°C CC (Closed cup).
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 7.0 Lower flammable/explosive limit: 0.6
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.
Auto-ignition temperature	>220°C Method: ASTM E659
Viscosity	1 - 2.5 cSt @ 40°C (EN 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.
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.
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10.2. Chemical stability

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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 (LD₅₀ mg/kg) 5,000.0

Species Rat

Notes (oral LD₅₀) (OECD 420) Conclusive data but not sufficient for classification.

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rabbit

Notes (dermal LD₅₀) (OECD 402) Conclusive data but not sufficient for classification.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 5.28

Species Rat

Notes (inhalation LC₅₀) (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

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Respiratory sensitisation	This endpoint is not a REACH requirement There is no evidence that the material can lead to respiratory hypersensitivity.
<u>Skin sensitisation</u>	
Skin sensitisation	Buehler test: - Guinea pig: Not sensitising. (OECD 406)
<u>Germ cell mutagenicity</u>	
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.
<u>Carcinogenicity</u>	
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
<u>Reproductive toxicity</u>	
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, (OECD 414) This substance has no evidence of toxicity to reproduction.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	NOAEL 750 mg/kg, Oral, Rat
<u>Aspiration hazard</u>	
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.
<u>12.1. Toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 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	LL ₅₀ , 72 hours: 677.9 mg/l, 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	NOEL, 28 days: 0.098 mg/l, Onchorhynchus mykiss (Rainbow trout) Estimated using PETROTOX computer model

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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 terrestrial 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.

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.
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 structural 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.
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12.6. Other adverse effects

Other adverse effects	None known.
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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.
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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

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

ADN packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

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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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

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
Revision date	23/10/2017
Revision	3
Supersedes date	23/12/2014
SDS number	21306
SDS status	Approved.
Hazard statements in full	H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.