

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

1.1. Product identifier

Trade name or designation of the mixture CS-90

Registration number -

Synonyms None.

Product code BDS002272AE

Issue date 22-June-2022

Version number 1.0

Revision date 22-June-2022

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

Identified uses Lubricants

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company name CRC Industries UK Ltd.

Address Wylids Road
Castlefield Industrial Estate
TA6 4DD Bridgwater Somerset
United Kingdom

Telephone +44 1278 727200

Fax +44 1278 425644

E-mail hse.uk@crcind.com

Website www.crcind.com

Company name CRC Industries Europe bv

Address Touwslagerstraat 1
9240 Zele
Belgium

Telephone +32(0)52/45.60.11

Fax +32(0)52/45.00.34

E-mail hse@crcind.com

Website www.crcind.com

1.4. Emergency telephone number Tel.:(+44)(0)1278 72 7200 (office hours: 9-17h GMT)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Aerosols	Category 1	H222 - Extremely flammable aerosol. H229 - Pressurized container: May burst if heated.
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Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Specific target organ toxicity - single exposure	Category 3 narcotic effects	H336 - May cause drowsiness or dizziness.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.
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2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended**Contains:** Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane**Hazard pictograms****Signal word**

Danger

Hazard statements

H222 Extremely flammable aerosol.
 H229 Pressurized container: May burst if heated.
 H315 Causes skin irritation.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements**Prevention**

P102 Keep out of reach of children.
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.
 P261 Avoid breathing mist/vapours.
 P271 Use only outdoors or in a well-ventilated area.

Response

Not assigned.

Storage

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information

None.

2.3. Other hazards

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients**Mixture****General information**

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	<25	- 921-024-6	01-2119475514-35	-	Classification: Flam. Liq. 2;H225, Skin Irrit. 2;H315, STOT SE 3;H336, Asp. Tox. 1;H304, Aquatic Chronic 2;H411
Copper	<5	7440-50-8-6	-	-	Classification: Acute Tox. 4;H302, Acute Tox. 3;H331, Aquatic Acute 1;H400, Aquatic Chronic 2;H411

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
 ATE: Acute toxicity estimate.
 M: M-factor
 PBT: persistent, bioaccumulative and toxic substance.
 vPvB: very persistent and very bioaccumulative substance.
 All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments

The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures**General information**

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison centre or doctor/physician if you feel unwell.

Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	In the unlikely event of swallowing contact a physician or poison control centre. Rinse mouth.
4.2. Most important symptoms and effects, both acute and delayed	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.
4.3. Indication of any immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards	Extremely flammable aerosol.
5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
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	Contents under pressure. Pressurised container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Special fire fighting procedures	Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapour pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. In the event of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.
For emergency responders	Keep unnecessary personnel away. Avoid breathing mist/vapours. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
6.2. Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
6.3. Methods and material for containment and cleaning up	Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. The product is immiscible with water and will spread on the water surface. Prevent product from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Pressurised container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing mist/vapours. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
7.2. Conditions for safe storage, including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store away from incompatible materials (see Section 10 of the SDS). Storage class (TRGS 510): 2B (Aerosol dispensers and lighters)
7.3. Specific end use(s)	Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General Population

Components	Value	Assessment factor	Notes
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane (CAS -)			
Long-term, Systemic, Dermal	699 mg/kg bw/day		
Long-term, Systemic, Inhalation	608 mg/m ³		
Long-term, Systemic, Oral	699 mg/kg bw/day		

Workers

Components	Value	Assessment factor	Notes
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane (CAS -)			
Long-term, Systemic, Dermal	773 mg/kg bw/day		
Long-term, Systemic, Inhalation	2035 mg/m ³		

Predicted no effect concentrations (PNECs) Not available.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection conforming to EN 166.

Skin protection

- Hand protection When handling the product wear chemical-resistant gloves (standard EN 374). The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through. Full contact: Glove material: nitrile. Use gloves with breakthrough time of 480 minutes. Minimum glove thickness 0.38 mm.

- Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapour cartridge and full facepiece. (Filter type AX)

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Aerosol.

Colour Copper.

Odour Solvent.

Odour threshold Not available.

pH Not applicable.

Melting point/freezing point Not available.

Initial boiling point and boiling range	60 - 95 °C (140 - 203 °F)
Flash point	-35.0 °C (-31.0 °F) Closed cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	8 % estimated
Flammability limit - upper (%)	0.9 % estimated
Vapour pressure	Not available.
Vapour density	3 at 20°C
Relative density	0.81 g/cm ³ at 20°C
Solubility(ies)	
Solubility (water)	Insoluble in water
Auto-ignition temperature	> 200 °C (> 392 °F)
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
9.2. Other information	
VOC	510 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid high temperatures.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	Carbon oxides.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation	May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Eye contact	Direct contact with eyes may cause temporary irritation.
Skin contact	Causes skin irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms May cause drowsiness or dizziness. Headache. Nausea, vomiting. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

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

Product	Species	Test Results
CS-90		
<u>Acute</u>		
Inhalation		
<i>Mist</i>		
ATEmix		10.989 mg/l

Components	Species	Test Results
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane		
Acute		
Dermal		
LD50	Rat	2920 mg/kg bw/day, 24 h
Inhalation		
LC50	Rat	25200 mg/m ³ , 4 h
Oral		
LD50	Rat	5840 mg/kg bw/day
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
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	Based on available data, the classification criteria are not met.	
Reproductive toxicity	Based on available data, the classification criteria are not met.	
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.	
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	Not likely, due to the form of the product.	
Mixture versus substance information	Not available.	

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects.

Components	Species	Test Results
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane		
Aquatic		
<i>Acute</i>		
Algae	EC50 Algae	> 30 - < 100 mg/l, 72 h
Crustacea	EC50 Daphnia	3 mg/l, 48 h
Fish	LC50 Fish	11.4 mg/l, 96 h
12.2. Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.	
12.3. Bioaccumulative potential	No data available.	
Partition coefficient n-octanol/water (log Kow)	Not available.	
Bioconcentration factor (BCF)	Not available.	
12.4. Mobility in soil	No data available.	
12.5. Results of PBT and vPvB assessment	This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.	
12.6. Other adverse effects	The product contains volatile organic compounds which have a photochemical ozone creation potential. GWP: 2	

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN1950
14.2. UN proper shipping name AEROSOLS, flammable
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Hazard No. (ADR) Not available.
Tunnel restriction code D
14.4. Packing group Not available.
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number UN1950
14.2. UN proper shipping name AEROSOLS, flammable
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
14.4. Packing group Not available.
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number UN1950
14.2. UN proper shipping name AEROSOLS, flammable
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
14.4. Packing group Not available.
14.5. Environmental hazards No.
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable
14.3. Transport hazard class(es)
Class 2.1
Subsidiary risk -
14.4. Packing group Not available.
14.5. Environmental hazards No.
ERG Code 10L
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

14.1. UN number UN1950
14.2. UN proper shipping name Aerosols, flammable

14.3. Transport hazard class(es)

Class 2.1

Subsidiary risk -

14.4. Packing group Not available.

14.5. Environmental hazards

Marine pollutant No.

EmS F-D, S-U

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

Retained direct EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road.
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).
CAS: Chemical Abstract Service.
Ceiling: Short Term Exposure Limit Ceiling value.
CEN: European Committee for Standardization.
CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
GWP: Global Warming Potential.
IATA: International Air Transport Association.
IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk.
IMDG: International Maritime Dangerous Goods.
MAC: Maximum Allowed Concentration.
MAK: Threshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG).
MARPOL: International Convention for the Prevention of Pollution from Ships.
PBT: Persistent, bioaccumulative and toxic.
REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation, Authorization and Restriction of Chemicals).
RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short term exposure limit.
TLV: Threshold Limit Value.
TWA: Time Weighted Average.
VLE: Exposure Limit Value.
VME: Exposure Average Value.
VOC: Volatile organic compounds.
vPvB: Very persistent and very bioaccumulative.
STEL: Short-term Exposure Limit.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H331 Toxic if inhaled.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

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