



SAFETY DATA SHEET ARBO CA

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

1.1. Product identifier

Product name ARBO CA

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

Identified uses Adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier Adshead Ratcliffe & Co. Ltd.
Derby Road, Belper
Derbyshire.
DE56 1WJ
Tel. (+44) 01773 826661
Fax. (+44) 01773 821215
sds@arbo.co.uk

1.4. Emergency telephone number

Emergency telephone (+44) 01773 826661 (office hours only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H336

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements

Pictogram



Signal word

Danger

Hazard statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P261 Avoid breathing vapours.</p> <p>P280 Wear protective gloves.</p> <p>P280 Wear eye protection.</p> <p>P273 Avoid release to the environment.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Contains	NAPHTHA (PETROLEUM) HYDROTREATED, LIGHT; MIXTURE, CYCLOHEXANE, BUTANONE, ZINC bis(DIBUTYLDITHIOCARBAMATE)

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

NAPHTHA (PETROLEUM) HYDROTREATED, LIGHT; MIXTURE	30-60%
CAS number: 64742-49-0 EC number: 265-151-9	
Classification	
Muta. 1B - H340 Carc. 1B - H350 Asp. Tox. 1 - H304	
CYCLOHEXANE	10-30%
CAS number: 110-82-7 EC number: 203-806-2 M factor (Acute) = 1 M factor (Chronic) = 1	
Classification	
Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
BUTANONE	10-30%
CAS number: 78-93-3 EC number: 201-159-0	
Classification	
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	

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ZINC bis(DIBUTYLDITHIOCARBAMATE)	1-5%
CAS number: 136-23-2	EC number: 205-232-8
M factor (Acute) = 1	M factor (Chronic) = 1
Classification Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H335 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Do not induce vomiting. Get medical attention if any discomfort continues.
Skin contact	Wash skin thoroughly 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	May cause discomfort if swallowed. May cause irritation to mouth, throat and stomach.
Skin contact	Skin irritation.
Eye contact	Causes serious eye irritation.

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	No unusual fire or explosion hazards noted.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

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Protective actions during firefighting Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes.

Special protective equipment for firefighters Wear self contained breathing apparatus.

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. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapours and contact with skin and eyes. Ventilate area to dispel any residual vapours.

6.2. Environmental precautions

Environmental precautions 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 Eliminate all sources of ignition. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Keep away from heat, sparks and open flame. Good personal hygiene procedures should be implemented.

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.

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

Occupational exposure limits

CYCLOHEXANE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m³

Short-term exposure limit (15-minute): WEL 300 ppm 1050 mg/m³

BUTANONE

Long-term exposure limit (8-hour TWA): WEL 200 ppm 600 mg/m³

Short-term exposure limit (15-minute): WEL 300 ppm 899 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

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Industry - Inhalation; Short term systemic effects: Cyclohexane: 700 mg/m³
 Industry - Inhalation; Short term local effects: Cyclohexane: 700 mg/m³
 Industry - Dermal; Long term systemic effects: Cyclohexane: 2016 mg/kg/day
 Industry - Dermal; Long term local effects: Cyclohexane: 700 mg/m³
 Industry - Inhalation; Long term systemic effects: Butanone: 600 mg/m³
 Consumer - Inhalation; Long term systemic effects: Butanone: 106 mg/m³
 Industry - Dermal; Long term systemic effects: Butanone: 1161 mg/kg/day
 Consumer - Dermal; Long term systemic effects: Butanone: 412 mg/kg/day

PNEC

- Fresh water; Cyclohexane: 0.207 mg/l
- marine water; Cyclohexane: 0.207 mg/l
- Sediment; Cyclohexane: 3.67 mg/kg
- Soil; Cyclohexane: 2.99 mg/l
- STP; Cyclohexane: 3.24 mg/l
- Fresh water; Butanone: 55.8 mg/l
- marine water; Butanone: 55.8 mg/l
- Sediment; Butanone: 284.74 mg/kg
- Soil; Butanone: 22.5 mg/kg

BUTANONE (CAS: 78-93-3)

DNEL

Workers - Inhalation; Long term systemic effects: 600 mg/m³
 Workers - Dermal; Long term systemic effects: 1161 mg/kg/day
 General population - Inhalation; Long term systemic effects: 106 mg/m³
 General population - Dermal; Long term systemic effects: 412 mg/kg/day
 General population - Oral; Long term systemic effects: 31 mg/kg/day

PNEC

- Fresh water; 55.8 mg/l
- marine water; 55.8 mg/l
- Intermittent release; 55.8 mg/l
- STP; 709 mg/l
- Sediment (Freshwater); 284.7 mg/kg
- Sediment (Marinewater); 284.7 mg/kg
- Soil; 22.5 mg/kg
- Oral (food); 1000 mg/kg

CYCLOHEXANE (CAS: 110-82-7)

DNEL

Workers - Inhalation; Long term systemic effects: 700 mg/m³
 Workers - Inhalation; Short term systemic effects: 700 mg/m³
 Workers - Inhalation; Long term local effects: 700 mg/m³
 Workers - Inhalation; Short term systemic effects: 700 mg/m³
 Workers - Dermal; Long term systemic effects: 2016 mg/kg/day
 General population - Inhalation; Long term systemic effects: 206 mg/m³
 General population - Inhalation; Short term systemic effects: 412 mg/m³
 General population - Inhalation; Long term local effects: 206 mg/m³
 General population - Inhalation; Short term local effects: 412 mg/m³
 General population - Dermal; Long term systemic effects: 1186 mg/kg/day
 General population - Oral; Long term systemic effects: 59.4 mg/kg/day

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PNEC

- Fresh water; 0.207 mg/l
- marine water; 0.207 mg/l
- Intermittent release; 0.207 mg/l
- STP; 3.24 mg/l
- Sediment (Freshwater); 3.627 mg/kg
- Sediment (Marinewater); 3.627 mg/kg
- Soil; 2.99 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear eye protection. Manufactured / tested in accordance with EN 166.

Hand protection

Use protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, 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.

Other skin and body protection

Provide eyewash station.

Hygiene measures

Wash promptly with soap and water if skin becomes contaminated.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Black.
Odour	Organic solvents.
Odour threshold	No information available.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	60°C @ 760 mm Hg
Flash point	- 19°C
Evaporation rate	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.3 Upper flammable/explosive limit: 11.5
Vapour pressure	175 hPa @ 20°C
Vapour density	Not determined.
Relative density	0.89 @ 20°C

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Solubility(ies)	Immiscible with water.
Partition coefficient	Not applicable.
Auto-ignition temperature	No information available.
Decomposition Temperature	Not determined.
Viscosity	3500 mPa s @ 20°C
Explosive properties	No information available.
Oxidising properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.

9.2. Other information

Volatile organic compound This product contains a maximum VOC content of 56.30 %.

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.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Respiratory sensitisation

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Respiratory sensitisation	The product contains a small amount of a sensitising substance which may cause an allergic reaction in sensitive individuals.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Does not contain any substances known to be mutagenic.
<u>Carcinogenicity</u>	
Carcinogenicity	Does not contain any substances known to be carcinogenic.
<u>Reproductive toxicity</u>	
Reproductive toxicity - development	Does not contain any substances known to be toxic to reproduction.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Based on constituents classified as a specific target organ toxicant after single exposure. May cause drowsiness and dizziness.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Not anticipated to present an aspiration hazard, based on chemical structure.
<u>Inhalation</u>	
Inhalation	Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Headache. Dizziness. Drowsiness.
<u>Ingestion</u>	
Ingestion	Gastrointestinal symptoms, including upset stomach.
<u>Skin contact</u>	
Skin contact	Irritating to skin. May cause an allergic skin reaction.
<u>Eye contact</u>	
Eye contact	May cause serious eye damage.
<u>Acute and chronic health hazards</u>	
Acute and chronic health hazards	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
<u>Medical considerations</u>	
Medical considerations	Skin disorders and allergies.

SECTION 12: Ecological information

Ecotoxicity	The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
<u>12.1. Toxicity</u>	
Toxicity	There are no data for the product.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	EC ₅₀ , 24 hours: Naphtha (petroleum), hydrotreated light: <130 mg/kg, Oncorhynchus mykiss (Rainbow trout) LC ₅₀ , 96 hours: Cyclohexane: 4.53 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: Cyclohexane: 0.9 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 24 hours: Naphtha (petroleum), hydrotreated light: >100 mg/kg, Selenastrum capricornutum EC ₅₀ , 72 hours: Cyclohexane: 3.4 mg/l, Algae

12.2. Persistence and degradability

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Persistence and degradability There are no data on the degradability of this product. Cyclohexane and butanone are biodegradable. Butanone: BOD5 = 62% ThOD

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not applicable.

12.4. Mobility in soil

Mobility The product is immiscible with water and will spread on the water surface.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not 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. When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods Collect and place in suitable waste disposal containers and seal securely. Confirm disposal procedures with environmental engineer and local regulations. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Waste class HP3 Flammable HP4 Irritant HP5 STOT / Aspiration toxicity HP14 Ecotoxic Recommended EWC Code 08 04 09*

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1133

UN No. (IMDG) 1133

UN No. (ICAO) 1133

UN No. (ADN) 1133

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ADHESIVES, special provision 640H, ENVIRONMENTALLY HAZARDOUS, (Naphtha (petroleum), hydrotreated light, CYCLOHEXANE)

Proper shipping name (IMDG) ADHESIVES (Naphtha (petroleum), hydrotreated light, CYCLOHEXANE), ENVIRONMENTALLY HAZARDOUS

Proper shipping name (ICAO) ADHESIVES (Naphtha (petroleum), hydrotreated light, CYCLOHEXANE), ENVIRONMENTALLY HAZARDOUS

Proper shipping name (ADN) ADHESIVES (Naphtha (petroleum), hydrotreated light, CYCLOHEXANE), ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR/RID class 3

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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

EmS	F-E, S-D
ADR transport category	3
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
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

EU legislation Regulation (EC) 1272/2008 CLP (as amended).
Regulation (EC) 1907/2006 REACH (as amended).

Guidance Workplace Exposure Limits EH40.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	General review
Revision date	15/10/2018
Revision	2

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Supersedes date	26/06/2017
SDS number	10409
Hazard statements in full	H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. 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.