



SAFETY DATA SHEET ARBO CLEANER No. 15

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

1.1. Product identifier

Product name ARBO CLEANER No. 15

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

Identified uses Cleaning agent. Solvent

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

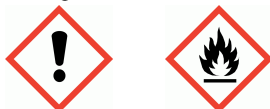
2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 2 - H225
Health hazards Eye Irrit. 2 - H319 STOT SE 3 - H336
Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P280 Wear eye protection.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/ container in accordance with national regulations.

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Supplemental label information EUH066 Repeated exposure may cause skin dryness or cracking.

Contains BUTANONE

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| | |
|---|----------------------|
| BUTANONE | 60-100% |
| CAS number: 78-93-3 | EC number: 201-159-0 |
| Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336 | |

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 a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Get medical attention if any discomfort continues or if large amounts have been ingested. |
| 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. Irritation of nose, throat and airway. |
| Ingestion | May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. |
| Skin contact | Prolonged contact may cause redness, irritation and dry skin. |
| Eye contact | Irritation of eyes and mucous membranes. |

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 alcohol-resistant foam, carbon dioxide or dry powder. Water spray, fog or mist. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

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5.2. Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Heating may generate flammable vapours. Vapours may be ignited by a spark, a hot surface or an ember. Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). The product is highly flammable. Solvent vapours may form explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

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

5.3. Advice for firefighters

Protective actions during firefighting Keep up-wind to avoid fumes. Fight fire from safe distance or protected location. Move containers from fire area if it can be done without risk. Be aware of danger of explosion. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. Do not use water jet as an extinguisher, as this will spread the fire.

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 appropriate protective clothing. Avoid inhalation of vapours and contact with skin and eyes. Eliminate all sources of ignition. Take precautionary measures against static discharges.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Avoid or minimise the creation of any environmental contamination. Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Avoid the spillage or runoff entering drains, sewers or watercourses. Caution - spillages may be slippery. Inform authorities if large amounts are involved.

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. 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 inhalation of vapours. Do not use in confined spaces without adequate ventilation and/or respirator. Good personal hygiene procedures should be implemented. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Contaminated rags and cloths must be put in fireproof containers for disposal.

7.2. Conditions for safe storage, including any incompatibilities

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| | |
|---------------------------------|--|
| Storage precautions | Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from light. Earth container and transfer equipment to eliminate sparks from static electricity. |
| 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. |
| Usage description | Wipe-on, wipe-off application. |

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

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.

| | |
|-------------|--|
| DNEL | Industry - Dermal; : 1161 mg/kg/day |
| | Industry - Inhalation; : 600 mg/m ³ |
| | Consumer - Dermal; : 412 mg/kg/day |
| | Consumer - Inhalation; : 106 mg/m ³ |

| | |
|-------------|---------------------------|
| PNEC | - Fresh water; 55.8 mg/l |
| | - Marine water; 55.8 mg/l |
| | - Sediment; 284.74 mg/kg |
| | - Soil; 22.5 mg/kg |

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| | |
|-------------|--|
| DNEL | Workers - Inhalation; Long term systemic effects: 600 mg/m ³ |
| | Workers - Dermal; Long term systemic effects: 1161 mg/kg/day |
| | General population - Inhalation; Long term systemic effects: 106 mg/m ³ |
| | 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 | |

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

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| | |
|--|---|
| Eye/face protection | The following protection should be worn: Chemical splash goggles. |
| Hand protection | Wear protective gloves made of the following material: Butyl rubber. Polytetrafluoroethylene (PTFE, Teflon). It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. |
| Other skin and body protection | Provide eyewash station. Wear appropriate clothing to prevent repeated or prolonged skin contact. |
| Hygiene measures | Provide eyewash station and safety shower. Use engineering controls to reduce air contamination to permissible exposure level. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke. |
| Respiratory protection | Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. It is recommended to use respiratory equipment with combination filter, type A2/P2. |
| 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 | Colourless. |
| Odour | Acetone. Ketonic. |
| Odour threshold | Lower 2 ppm Upper 83 ppm |
| pH | Not applicable. |
| Melting point | -86°C |
| Initial boiling point and range | 79.6°C @ 1016 hPa |
| Flash point | -6°C CC (Closed cup). |
| Evaporation rate | 6.00 (butyl acetate = 1) |
| Evaporation factor | Not available. |
| Upper/lower flammability or explosive limits | Upper flammable/explosive limit: 11.5 g/100 g Lower flammable/explosive limit: 1.80 g/100 g |
| Vapour pressure | 10.3 kPa @ 20°C |
| Vapour density | 2.42 |
| Relative density | 0.805 @ 20°C |
| Solubility(ies) | 27 g/100 g water @ 20°C Miscible with the following materials: Organic solvents. |
| Partition coefficient | Butanone: log Pow 0.29 |
| Auto-ignition temperature | 404°C |
| Decomposition Temperature | Not determined. |
| Viscosity | 0.43 cP @ 20°C |
| Explosive properties | Heating may generate vapours which may form explosive mixtures with air. |
| Oxidising properties | Does not meet the criteria for classification as oxidising. |

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9.2. Other information

Other information None.

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 Not known. 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 Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products None at ambient temperatures. 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

Skin corrosion/irritation

Animal data Moderately irritating.

Respiratory sensitisation

Respiratory sensitisation There is no evidence that the material can lead to respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Does not contain any substances known to be mutagenic.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Does not contain any substances known to be toxic to reproduction.

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation

Vapours may cause drowsiness and dizziness.

Ingestion

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin contact

Repeated exposure may cause skin dryness or cracking.

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| | |
|-------------------------------|--|
| Eye contact | Irritating to eyes. |
| Route of entry | Inhalation Ingestion. Skin and/or eye contact |
| Target organs | Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin |
| Medical symptoms | Irritation of eyes and mucous membranes. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Headache. Fatigue. Nausea, vomiting. |
| Medical considerations | Skin disorders and allergies. Convulsions. Central nervous system depression. |

Toxicological information on ingredients.

BUTANONE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 3460 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ > 10 mL/kg bw, Dermal, Rabbit

Skin corrosion/irritation

Animal data Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Irritating.

Skin sensitisation

Skin sensitisation Buehler test - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Negative.

Genotoxicity - in vivo Negative.

Reproductive toxicity

Reproductive toxicity - development Maternal toxicity: - NOAEC: 1002 ppm, Inhalation, Rat Teratogenicity: - NOAEC: 1002 ppm, Inhalation, Rat

SECTION 12: Ecological Information

Ecotoxicity This substance is relatively volatile. It will evaporate from water and soil over the course of a few days. The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Ecological information on ingredients.

BUTANONE

Acute toxicity - fish LC₅₀, 96 hours: 2993 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 308 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 48 hours: 1888 mg/l, Selenastrum capricornutum

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Acute toxicity - microorganisms

TT (Toxicity threshold), 16 hours: 1150 mg/l, *Pseudomonas putida*

12.2. Persistence and degradability

Persistence and degradability Expected to be readily biodegradable.

Ecological information on ingredients.

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Biodegradation

The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential This product is not expected to significantly bioaccumulate.

Partition coefficient Butanone: log Pow 0.29

Ecological information on ingredients.

BUTANONE

Partition coefficient

log Pow: 0.29

12.4. Mobility in soil

Mobility The product is soluble in water.

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. Materials such as cleaning rags and paper wipes that are contaminated with flammable liquids may self-ignite after use and should be stored in designated fireproof containers with tight-fitting, self-closing lids.

Disposal methods

Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Confirm disposal procedures with environmental engineer and local regulations.

Waste class

HP3 Flammable HP4 Irritant Recommended EWC Code 14 06 03*

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1193

UN No. (IMDG) 1193

UN No. (ICAO) 1193

UN No. (ADN) 1193

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14.2. UN proper shipping name

| | |
|--------------------------------|---|
| Proper shipping name (ADR/RID) | ETHYL METHYL KETONE (METHYL ETHYL KETONE) |
| Proper shipping name (IMDG) | ETHYL METHYL KETONE (METHYL ETHYL KETONE) |
| Proper shipping name (ICAO) | ETHYL METHYL KETONE (METHYL ETHYL KETONE) |
| Proper shipping name (ADN) | ETHYL METHYL KETONE (METHYL ETHYL KETONE) |

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 | II |
| IMDG packing group | II |
| ADN packing group | II |
| ICAO packing group | II |

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

| | |
|--|----------|
| EmS | F-E, S-D |
| ADR transport category | 2 |
| Emergency Action Code | •2YE |
| 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) 1907/2006 REACH (as amended). Regulation (EC) 1272/2008 CLP (as amended). |
| Guidance | Workplace Exposure Limits EH40. |

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15.2. Chemical safety assessment

SECTION 16: Other information

| | |
|----------------------------------|--|
| Revision comments | General review |
| Revision date | 09/05/2017 |
| Revision | 2 |
| Supersedes date | 05/05/2017 |
| SDS number | 10028 |
| Hazard statements in full | H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. |

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.