

SAFETY DATA SHEET

Circuit

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

1.1. Product identifier

Product name Circuit

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

Identified uses Solvent cleaner PC35 Washing and cleaning products

1.3. Details of the supplier of the safety data sheet

Supplier Aztec Chemicals
 Unit 16, University Way
 Orion Park
 Crewe
 Cheshire
 CW1 6NG
 + 44 (0) 1270 655500 (T)
 + 44 (0) 1270 655501 (F)
 info@aztecchemicals.com

1.4. Emergency telephone number

Emergency telephone +44 (0)1270 656380 (Monday to Friday, 9am to 5pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Aerosol 1 - H222, H229

Health hazards STOT SE 3 - H336

Environmental hazards Aquatic Chronic 2 - H411

Human health Gas or vapour is harmful on prolonged exposure or in high concentrations. In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Deliberately concentrating and inhaling the contents of this container is dangerous and can be fatal.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Physicochemical Aerosol containers can explode when heated, due to excessive pressure build-up. The product is extremely flammable. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

2.2. Label elements

Hazard pictograms



Signal word

Danger

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Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated. H336 May cause drowsiness or dizziness. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	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. P271 Use only outdoors or in a well-ventilated area. P260 Do not breathe vapour/ spray. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P501 Dispose of contents/ container in accordance with local regulations.
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	PENTANE
Detergent labelling	≥ 30% aliphatic hydrocarbons

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PENTANE		60-100%
CAS number: 109-66-0	EC number: 203-692-4	REACH registration number: 01-2119459286-30
Classification		
Flam. Liq. 2 - H225		
STOT SE 3 - H336		
Asp. Tox. 1 - H304		
Aquatic Chronic 2 - H411		

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	Move affected person to fresh air at once.
Inhalation	If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
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 and get medical attention.

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

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General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

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.

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. Extremely flammable. Forms 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.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Warn firefighters that aerosols are involved.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Avoid inhalation of vapours.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. 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 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. Leave small quantities to evaporate, if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Do not spray on a naked flame or any incandescent material.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Extremely flammable. Keep away from heat, sparks and open flame. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

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

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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

PENTANE

Long-term exposure limit (8-hour TWA): WEL 600 ppm

Short-term exposure limit (15-minute): WEL 750 ppm

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

PENTANE (CAS: 109-66-0)

DNEL	Industry - Dermal; Long term systemic effects: 432 mg/kg/day Industry - Inhalation; Long term systemic effects: 3000 mg/m ³ Consumer - Oral; Long term systemic effects: 214 mg/kg/day Consumer - Dermal; Long term systemic effects: 214 mg/kg/day Consumer - Inhalation; Long term systemic effects: 643 mg/m ³
PNEC	- water; 0.23 mg/l - Sediment; 1.2 mg/kg - Soil; 0.55 mg/kg - STP; 3.60 mg/l

8.2. Exposure controls

Appropriate engineering controls	Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Observe any occupational exposure limits for the product or ingredients.
Personal protection	When using do not smoke.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.
Hand protection	Due to the packaging form, aerosol, risk of skin contact is small. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). 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.
Hygiene measures	Wash hands after handling. Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate hand lotion to prevent defatting and cracking of skin.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Colourless.
Odour	Characteristic.
Odour threshold	990
Initial boiling point and range	35-37°C @
Flash point	< -50°C Closed cup.

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Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.4% Upper flammable/explosive limit: 7.8%
Vapour pressure	72 kPa @ °C
Vapour density	2.5
Relative density	0.62624 @ 20°C
Solubility(ies)	Insoluble in water.
Partition coefficient	: 3.39
Auto-ignition temperature	404°C
Viscosity	0.41 cSt @ 25°C
Comments	Information given is applicable to the major ingredient.

9.2. Other information

Other information	Not available.
Refractive index	1.358
Critical temperature	285°C
Volatile organic compound	This product contains a maximum VOC content of 600 g/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable at normal ambient temperatures and when used as recommended.
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10.2. Chemical stability

Stability	Avoid the following conditions: Heat, sparks, flames.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Does not decompose when used and stored as recommended.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid exposing aerosol containers to high temperatures or direct sunlight.
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10.5. Incompatible materials

Materials to avoid	Keep away from oxidising materials, heat and flames.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or vapours.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

General information	Deliberately concentrating and inhaling the contents of this container is dangerous and can be fatal.
Inhalation	In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Unconsciousness, possibly death.

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Skin contact	Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.
Eye contact	Vapour or spray in the eyes may cause irritation and smarting.
Acute and chronic health hazards	Arrhythmia (deviation from normal heart beat). In high concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Route of exposure	Inhalation
Target organs	Central nervous system Respiratory system, lungs
Medical symptoms	Arrhythmia (deviation from normal heart beat). Narcotic effect. Vapours may cause drowsiness and dizziness.

SECTION 12: Ecological information

Ecotoxicity This product has not been tested but contains ingredients which are toxic or very toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. During normal use the volatility of the components and the packaging form, pressurised container, make entry into the aquatic environment unlikely, however, do not empty or discharge into drains or watercourses. Ensure container is empty before disposal to prevent contents entering watercourses.

12.1. Toxicity

Toxicity Not available.

12.2. Persistence and degradability

Persistence and degradability Not available.

12.3. Bioaccumulative potential

Bioaccumulative potential Not available.

Partition coefficient : 3.39

12.4. Mobility in soil

Mobility Not known.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Not available.

12.6. Other adverse effects

Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Empty containers must not be punctured or incinerated because of the risk of an explosion.

SECTION 14: Transport information

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General

This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed and labelled must show the following.

14.1. UN number

UN No. (ADR/RID)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	AEROSOLS (PENTANE)
Proper shipping name (IMDG)	AEROSOLS (PENTANE)
Proper shipping name (ICAO)	AEROSOLS (PENTANE)
Proper shipping name (ADN)	AEROSOLS (PENTANE)

14.3. Transport hazard class(es)

ADR/RID class	2.1
ADR/RID label	2.1
IMDG class	2.1
ICAO class/division	2.1

Transport labels



14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-D, S-U
Tunnel restriction code	(D)

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

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National regulations	The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824). The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). EH40/2005 Workplace exposure limits.
EU legislation	Commission Regulation (EU) No 453/2010 of 20 May 2010.
Guidance	Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131. British Aerosol Manufacturers Code of Practice 7th. Edition 1999

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	Supplemental information added.
Revision date	02/07/2019
Revision	3
SDS number	10019
SDS status	Approved.
Hazard statements in full	H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated. H304 May be fatal if swallowed and enters airways. H336 May cause drowsiness or dizziness. 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.