

Material Safety Data Sheet (MSDS)



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(MSDS)**

Document No:
AEC1005

SECTION 1- Identification

1.1 Product identifier Trade name: **A41 C** Product code: - 1.2 Relevant identified uses of the substance or mixture and uses advised as cycle cleaner for industrial Coil treatment. Uses advised against: Any use not specified above. 1.3 Details of the supplier of the safety data sheet Company: AbanEnergy

Telephone: +9821 92002736 ,E- mail (competent person): O.anamzadeh@aban.energy

1.4 Emergency telephone number: <+989109540595>

SECTION 2 - Hazard Identification

GHS classification (summary):

- Carcinogenicity — Category 2. (H351: Suspected of causing cancer).
- Specific target organ toxicity — single exposure (narcotic effects) — Category 3 (H336: May cause drowsiness or dizziness).
- Acute toxicity (inhalation) — Category 4 (H332: Harmful if inhaled). (Some supplier SDS list inhalation hazard).
- Skin irritation — Category 2 (H315) / Eye irritation — Category 2 (H319) (varies by source).

Label elements

- **Signal word:** WARNING (or DANGER in some jurisdictions — check local rules).
- **Pictograms:** GHS08 (Health Hazard) and GHS07 (Exclamation). **Hazard statements:**
 - H351 Suspected of causing cancer.
 - H336 May cause drowsiness or dizziness.
 - H332 Harmful if inhaled.
 - H315 Causes skin irritation.
 - H319 Causes serious eye irritation.

Precautionary statements (examples):

- P201 Obtain special instructions before use.
- P261 Avoid breathing vapor.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/eye protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.



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SECTION 3 - Composition / Information on Ingredients

This product is a mixture. Exact concentrations and identities are withheld as trade secret; ranges provided meet regulatory requirements.

SECTION 4 - First Aid Measures

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Seek medical attention. If unconscious, place in recovery position and get medical help. (H336/H332).

Skin contact: Remove contaminated clothing. Wash immediately with soap and water. Get medical attention if irritation persists. Prolonged contact may cause defatting and dermatitis.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Seek medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Seek immediate medical attention. (A41 C is harmful if swallowed and may have systemic effects.)

Notes to physician: Treat symptomatically. Monitor for respiratory depression, liver and kidney function. Consider possibility of CNS depression and arrhythmia in severe exposures

SECTION 5 - Firefighting Measures

Flammable properties: A41 C is not classified as highly flammable but has lower and upper flammability limits and **may form flammable mixtures at high temperature/pressure**; some sources note combustible vapor behavior (NIOSH notes LEL/UEL).

Suitable extinguishing media: Alcohol-resistant foam, dry chemical, CO₂, water spray.

Unsuitable extinguishing media: Direct water jet (may spread).



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Special hazards: Thermal decomposition can produce highly toxic gases! — use extreme caution.

Protective equipment for firefighters: Full protective clothing and SCBA

SECTION 6 - Accidental Release Measures

Evacuate area; ventilate. Remove sources of ignition. Use appropriate PPE (chemical-resistant gloves, goggles, respirator if vapor levels exceed OEL). Absorb spill with inert material (vermiculite, sand), collect into labelled containers for disposal. Prevent entry into drains, sewers, and waterways. Notify authorities if large release. For large releases consider vapor suppression (fogging) and forced ventilation

SECTION 7 - Handling and Storage

Handling:

- Use only with adequate ventilation or local exhaust to keep airborne concentrations below exposure limits. Avoid breathing vapors. Avoid skin and eye contact.

Storage:

- Keep container tightly closed in a cool, well-ventilated place. Protect from heat and sunlight. Store away from strong oxidizers and alkali metals. Use compatible materials (stainless steel, certain plastics). Follow supplier storage guidance

SECTION 8 - Exposure Controls / Personal Protection

Occupational exposure limits (examples — consult local regulations):

- **OSHA PEL (USA):** 25 ppm TWA .
- **NIOSH REL / ACGIH / other:** values vary; ACGIH has historical values (check current ACGIH). NIOSH/CDC pocket guide provides guidance on exposure and health effects.

Engineering controls: Local exhaust ventilation, fume hoods. Use closed systems where possible.

PPE:



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- **Respiratory:** If exposures above OELs are possible, use respirator with organic vapor cartridges or supplied-air respirator per regulations.
- **Eyes:** Chemical splash goggles/face shield.
- **Skin:** Chemical-resistant gloves (e.g., butyl rubber, viton) and protective clothing

SECTION 9 - Physical and Chemical Properties

Appearance: Colorless liquid

Odor: Slight sweet odor

pH: Not applicable

Boiling point: 41 °C (approx)

Flash point: Not applicable (non-flammable under standard conditions)

Vapor pressure: Relatively high (significant vapor at room temp)

Relative density: ~1.35 g/cm³ (20 °C)

Solubility: Slightly soluble in water; miscible with many organic solvents

SECTION 10 - Stability and Reactivity

Stability: Stable under normal conditions.

Incompatibilities: Strong oxidizers, alkali metals, active metals (Al, Mg), amines. Avoid strong bases.

Hazardous decomposition products: Hydrogen chloride, phosgene (at high temperatures), carbon monoxide, carbon dioxide

SECTION 11 - Toxicological Information

Acute effects: CNS depression (drowsiness, dizziness, headache), nausea, vomiting. May cause irritation to skin and eyes. (H336, H315, H319).

Chronic effects: Suspected human carcinogen (IARC category 2A/2B historically; many SDS list H351 Suspected of causing cancer). Chronic inhalation can affect liver, kidney, and blood.



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Routes of exposure: Inhalation (primary), dermal absorption, ingestion. Skin contact may cause irritation and dermatitis; A41 C is absorbed through skin.

SECTION 12 - Ecological Information

Ecotoxicity: Can be harmful to aquatic life; volatile and will evaporate; follow regulations to avoid release.

Persistence / degradability: Volatile; biodegradation limited.

Bioaccumulation: Low potential due to volatility

SECTION 13 - Disposal Considerations

Dispose of waste in accordance with local, regional, national and international regulations. Do not discharge into drains or surface waters. Incineration at licensed facilities is common for A41 C (follow local environmental rules).

SECTION 14 - Transport Information

UN number: Unknown.

UN proper shipping name: Unknown

Transport hazard class(es): 6.1 (Toxic) — labeling may show 6.1.

Packing group: III (may vary by purity/stabilizer).

IMDG / IATA: See specific transport regulations; limited quantity and passenger/cargo limits apply.

Special precautions: Secure containers, avoid heat sources, ensure adequate ventilation during transport.

SECTION 15 - Regulatory Information

Carcinogen listings and regulatory requirements vary by country. A41 C is regulated and may be subject to restrictions (e.g., OSHA, REACH restrictions in some uses). Check local regulations



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SECTION 16 - Other Information

Main H-statements used in this SDS: H315, H319, H332, H336, H351.

Revision date: Aug 2025.

References / further reading: Supplier SDS (e.g., Sigma-Aldrich), NIOSH Pocket Guide, OSHA chemical database, UN transport listings



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