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va-Q-tec AG
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1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

- Identification of the substance or preparation: va-Q-accu +04G
- Use of the substance/preparation: Heat accumulator
- Company / Undertaking identification: va-Q-tec AG
Karl-Ferdinand-Braun Str. 7
97080 Wuerzburg / Germany
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- Emergency telephone: Tel.: +49 (0)931 35 942 0
(Monday to Friday: 08:00 to 17:00, GMT+1)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation

- Fluid: Saturated hydrocarbone, molecular formula C_nH_{2n+2}
CAS-Number: 64771-72-8
EINECS-Number: 265-233-4
- Shell: High density polyethylene
CAS-Number: 9002-32-4

3. HAZARDS IDENTIFICATION

NOTE: EEC-labelling: Xn, harmful

- Potential dangers to health and environment: May cause damage to lung if swallowed. Repeated exposure may cause skin dryness or cracking.
- Danger of fire and explosion: Product creates only ignitabel mixtures or burns, if temperature exceeds flash point > 105 °C (Slight risk)

4. FIRST AID MEASURES

NOTE: In case of escape of the contained fluid from the container.

- Inhalation: The person is to be removed immediately from premises and made to rest in a well ventilated area. Consult a doctor.
- Eye contact: Wash immediately with water. If irritation persists seek medical advice.
- Skin contact: Wash with plenty of water and soap. Change contaminated cloths.
- If swallowed: Do not under any circumstances induce vomiting. Keep person calm and consult a doctor.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Carbon dioxide (CO₂), foam, dry powder, sand, water mist.
- Extinguishing media that must not be used for safety reasons: Water
- Special exposure hazards arising from the substance, its combustion products or from resulting gases: In the case of fire, combustion gases are formed: Carbon monoxide (CO), carbon dioxide (CO₂), smoke
- Special protective equipment for fire fighting: Use self-contained breathing apparatus.
- Additional information
Cool endangered containers externally with water.
- Fire class according to DIN-EN 2: B

6. ACCIDENTAL RELEASE MEASURES

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- Personal precautions: Remove persons to safe place. Use gloves and protective clothing.
- Environmental precautions: Try to stop leakage.
- Solid / liquid: Do not allow to enter drains / surface waters / groundwater. In case of the leakage of a large amount inform the responsible authorities.
- Methods for cleaning up: Remove mechanically. Use spill absorbent material.

7. HANDLING AND STORAGE

- Handling
 - References to safe handling: Do not drink and avoid direct contact with skin and eyes.
 - References to the fire and explosion prevention: Product vapours can form explosive mixture with air.
- Storage: Be careful when open container. Do not store product close to open fire, heat or ignition sources. Material could electrostatic charge and eventually discharge. Thus take precautions (Grounding and bonding) against electrostatic charge and prevent ignition sources.
- Specific use(s): None

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8-1. Exposure limit values

- Technical measures / ventilation: Assure appropriate ventilation if product is used at high temperatures in closed rooms.

8-2. Exposure control

(1) Occupational exposure control (Germany)

- n-paraffins C5-C20 from petroleum:
MAK = 200 ppm (1000 mg/m³)
Group 1, TRGS 900/901 (1997)
- Respiratory protection: When exceeding occupational exposure limits (Maximum workplace concentration; MAK-value) for aerosols use appropriate breathing apparatus.
- Hand protection: Wear suitable protective gloves
- Eye protection: Wear safety goggles
- Skin protection: Protective clothing

(2) Environmental exposure controls: Sealed floor or metal tray.

9. PHYSICAL AND CHEMICAL PROPERTIES

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9-1. General information

(1) Fluid

- Physical state: Liquid
- Colour: Blue
- Odour: Odourless
- pH-value: Not applicable
- Melting point: +2 °C to +8 °C
- Boiling range: 245 °C to 285 °C
- Flash point (PMCC): > 105 °C
- Ignition temperature: > 200 °C
- Lower / upper explosion limit: 0.6 Vol.% / 7 Vol.%
- Vapour pressure at 20 °C: < 1 hPa
- Density at 20 °C (DIN 51 757): 766 kg/m³
- Relative density (010.3 kPa/air = 1): > 1
- Solubility at 20 °C: < 0.1 mg/l (In water)
- Viscosity at 50 °C: 18.67 mm²/s

(2) Shell

- Type: Hard, odourless
- Colour: White / transparent
- Melting point: 130 °C to 140 °C
- Flash point: 330 °C to 350 °C
- Ignition temperature: 440 °C

9-2. Important health safety and environmental information

(1) Fluid

- Inhalation: Steam concentration above the recommended standard can cause irritation of respiratory tract. Long-term and / or numerous repeated exposure with high concentration of steams can cause deposits of the liquied in the lungs, inflammation and a increased risk of infection. The person is to be removed immediately from premises and made to rest in a well ventilated area. Consult a doctor.
- Skin contact: Frequent or long-term skin contact may degrease and dry the skin; this may lead to irritation and inflammation. Wash with plenty of water and soap. Change contaminated cloths.
- Eye contact: Can cause lightly irritation of the eye but never cause damage of the eye tissue. Wash immediately with water. If irritation persists consult a doctor.
- If swallowed: Smallest amouts that get into the lungs, caused by swallowing or vomiting, can cause lung oedema or inflammation. Do not under any circumstances induce vomiting. Keep patient calm and consult a doctor.

9-3. Other information

- With appropriate use, by following directions of use and by adhering to the hygiene regulations, the product is not toxic according to our experience and information to date. Do not open the container in any case.

10. STABILITY AND REACTIVITY

- Conditions to avoid: Under normal conditions no hazardous reactions likely
- Material to avoid: Strong oxidising agents
- Hazardous decomposition products: None

11. TOXICOLOGICAL INFORMATION

Acute toyicity:

- The product is not toxic.

12. ECOLOGICAL INFORMATION

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NOTE: Do not release product into environment

12-1. Ecotoxicity (Aquatic toxicity)

- LC50 / Fish (2 days): No effect (Saturated solution)
- EC50 / Daphnia (2 days): No effect (Saturated solution)
- EC50 / Algae (3 days): No effect (Saturated solution)

12-2. Mobility: None

12-3. Persistence and degradability: Product is readily biodegradable (OECD 301 F)

12-4. Bioaccumulative potential : None

12-5. Other adverse effects: None

13. DISPOSAL CONSIDERATIONS

13-1. Fluid: After re-conditioning the product may be used again or thermally employed. Can be disposed off after consultation with the responsible authorities according to the following waste disposal.

Codes (European Waste Catalogue):

- 07 01 04: Organic solvents, washing liquids and mother liquors
- 07 01 99: Wastes not otherwise specified

13-2. Shell: The plastic outer casing may be used again after emptying the cooling fluid.

14. TRANSPORT INFORMATION

(ADR/RID; BimSchV/ADNR/ADN; IMDG/GGVSee; ICAO-TI and IATA-DGR):

Products like this one are not hazardous goods at temperature < 100 °C.

15. REGULATORY INFORMATION

15-1. Labelling in accordance with EC-regulations: Xn Harmful

15-2. Product is labelled and classified in accordance to 67/548/EEF (Dangerous Substances Directive) as amended.

15-3. Dangerous substance

(1) Paraffin (petroleum), normal

(2) Risk-phase, R-phase

- R65: Harmful, May cause lung damage if swallowed.
- R66: Repeated exposure may cause skin dryness or cracing

(3) Safety advice, S-phase

- S23: Do not inhale gas / smoke / vapour / aerosol
- S24: Avoid contact with skin
- S62: If swallowed do not induce vomiting. Seek medical advice and show this data sheet.
- S2: Keep away from children.

16. OTHER INFORMATION

None

Material Safety Data Sheet

va-Q-accu +04G

(in accordance with regulation No. 1907/2006)



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