## SECTION 1: Identification of the product and company

| | |
|---|---|
| System article | NVKS403WLSE |
| Product | Emergency lighting power supply system with valve-regulated lead-acid batteries (VRLA/AGM) |
| Contained battery type | OGIV12170LP |
| Nominal rating per battery block | 12 V \| 17 Ah |

### 1.1 Use and scope

This sheet describes the safety of the lead-acid batteries used in the identified system. Observe the system documentation for battery quantity and wiring; block voltage is not system voltage. Use only with the specified charging electronics and operating instructions. Chemical information concerns the batteries, not the system enclosure or electronics.

### 1.2 Supplier and product contact

**RP-Technik GmbH**
Hermann-Staudinger-Str. 10-16, 63110 Rodgau, Germany
Telephone: +49 (6106) 660 28 - 0
Email: product@rp-group.com | info@rp-group.com

### 1.3 Emergency contact

For an acute medical emergency or fire: **112 within the EU**. Following substance exposure, obtain medical assistance or contact a poison centre.

## SECTION 2: Hazards identification

Intact batteries used as intended enclose their contents. Electrolyte is corrosive. Released lead and lead compounds are harmful and toxic to reproduction. Charging may generate an explosive hydrogen-oxygen mixture. Short circuits cause high currents, heat and burns. Hazardous touch voltages may occur within the system.

Do not open batteries. Avoid smoking, naked flames and sparks. Wear eye protection, observe operating instructions and keep away from children. Remove damaged or leaking batteries from service.

## SECTION 3: Composition / information on ingredients

Valve-regulated lead-acid batteries are articles containing dilute sulphuric acid electrolyte absorbed in a glass-fibre mat. The table identifies safety-relevant constituents qualitatively. Generic series percentages are not stated as a model-specific formulation or as the composition of the complete system.

| Constituent | CAS / identification | Function |
|---|---|---|
| Metallic lead / lead alloys | 7439-92-1 (lead) | Electrodes and conductive parts |
| Lead-containing battery paste | Mixture of lead compounds | Active material; composition depends on state of charge |
| Sulphuric acid in water | 7664-93-9 (sulphuric acid) | Corrosive, absorbed electrolyte |
| Plastic casing, separators | Material-dependent | Structural components |

## SECTION 4: First aid measures

These measures concern released contents. Protect the responder and stop further exposure. Remove contaminated clothing. Obtain immediate medical assistance for chemical burns, eye contact, ingestion or breathing difficulties.

| Exposure | Action |
|---|---|
| Eyes | Immediately rinse with plenty of water for at least 15 minutes with eyelids open. Remove contact lenses if easy. Continue rinsing and obtain immediate medical attention. |
| Skin | Immediately rinse with plenty of water for at least 15 minutes. Remove contaminated clothing. Obtain medical attention following acid contact or symptoms. |
| Inhalation | Move to fresh air without endangering the responder. Obtain immediate medical attention for breathing difficulties; assisted breathing only by trained personnel. |
| Ingestion | Rinse mouth. Do not induce vomiting. Immediately contact a physician / poison centre. Give nothing by mouth to an unconscious person. |

## SECTION 5: Firefighting measures

Select extinguishing media for the surrounding fire and electrical hazards. CO2 can be used for suitable small electrical fires. Cool heated batteries externally from a protected position where electrically and operationally safe. Do not apply water to molten metal. Firefighting requires properly equipped responders.

Heat may damage casings, release acid mist and rupture batteries. Hydrogen can ignite or explode. Burning plastics produce gases including carbon monoxide and carbon dioxide. Use self-contained breathing apparatus and full protective clothing. Contain firefighting water.

## SECTION 6: Accidental release measures

Isolate and ventilate the area. Avoid contact with acid, battery paste and dust. Keep ignition sources away. Wear acid-resistant gloves, goggles/face protection and protective clothing. Absorb liquid with non-combustible, acid-compatible material. Neutralisation using suitable agents such as soda ash or lime is for trained personnel; allow for heat generation.

Collect damaged batteries and residues in suitable acid-resistant containers. Prevent entry into drains, soil or water. Inform competent authorities if an environmental release occurs. Dispose of as described in section 13.

## SECTION 7: Handling and storage

Store dry, cool, frost-free and under cover. Protect casings against mechanical damage, direct sunlight and heat. Insulate terminals and secure against tipping or movement. Do not lift by terminals. Do not place metal objects on batteries; use insulated tools and remove jewellery.

Ensure adequate ventilation during charging and keep vents clear. Observe charging parameters and temperature limits in the battery/system instructions. System work is for qualified personnel after safe isolation; batteries can remain live after mains disconnection.

## SECTION 8: Exposure controls / personal protection

Contents are enclosed in intact batteries. Leakage, overcharging or processing may release acid mist or lead-containing particles. Prevent exposure by suitable ventilation/extraction and work procedures. Observe current national exposure limits and the workplace risk assessment.

| Protection | Measure |
|---|---|
| Eyes / face | Chemical splash goggles; face shield where splashing is possible. Provide an eyewash facility. |
| Hands / body | Suitable acid-resistant gloves, protective clothing and safety footwear. Select material and breakthrough time for the task. |
| Respiratory protection | Use suitable protection based on risk assessment where exposure is possible or ventilation inadequate; use self-contained equipment for unknown high concentrations. |
| Hygiene | Do not eat, drink or smoke. Wash hands after work; clean contaminated clothing separately. |

## SECTION 9: Physical and chemical properties

| Property | Information |
|---|---|
| Form | Enclosed battery block; electrolyte absorbed in a mat |
| Nominal rating per block | 12 V \| 17 Ah |
| Lead / active material | Metallic grey or grey/brown; solid |
| Electrolyte | Dilute sulphuric acid, absorbed liquid; odourless |
| Water solubility | Sulphuric acid miscible with water; lead poorly soluble |
| pH / boiling and flash points of the article | Not applicable to the enclosed battery block |

## SECTION 10: Stability and reactivity

Stable when used as intended. Avoid overcharging, short circuits, heat, sparks and naked flames. Acid reacts with metals releasing hydrogen and reacts vigorously with alkalis. Keep away from strong oxidising agents. Decomposition may release acid mist, hydrogen and gases from burning casing materials.

## SECTION 11: Toxicological information

This information concerns released contents. Dilute sulphuric acid causes severe skin burns and eye damage. Acid mist may injure the respiratory tract and lungs; symptoms after inhalation can be delayed.

Lead and lead compounds may damage blood, the nervous system and kidneys following uptake. Repeated exposure can cause chronic lead poisoning. Reproduction and unborn children may be harmed; protect pregnant and breastfeeding workers from exposure. Do not inhale or ingest lead-containing dust or fumes.

### 11.2 Additional information

No specific toxicological test data for the complete system are provided here. Descriptions of constituent hazards do not classify the enclosed system as a substance or mixture.

## SECTION 12: Ecological information

Intact batteries do not release their contents when used as intended. Released acid changes pH and may harm aquatic organisms. Lead and lead compounds can persist in soil and sediments; dissolved lead is hazardous to aquatic organisms and may accumulate.

Prevent entry into water, soil and drains. Neutralised residues may still contain lead and require appropriate disposal. Environmental properties of the complete system have not been determined.

## SECTION 13: Disposal considerations

Collect lead-acid batteries separately and return through authorised collection or recycling channels. Do not place in household waste or mixed scrap; do not mix with other battery chemistries. Protect terminals against short circuits and keep casings intact. Do not drain electrolyte yourself.

Removal from the system is for qualified personnel following the instructions. Treat acid, contaminated absorbent and damaged batteries appropriately as hazardous waste. Agree waste classification and transport with the waste contractor.

## SECTION 14: Transport information

| Item | Information |
|---|---|
| Battery type | Valve-regulated, non-spillable lead-acid battery (VRLA/AGM) |
| Base classification | UN 2800; BATTERIES, WET, NON-SPILLABLE; class 8; no packing group |
| Road / rail | Exemption only if the applicable conditions of ADR/RID special provision 238 are met |
| Sea | Exemption only if IMDG special provision 238 is met |
| Air | Exemption only if IATA special provision A67 is met |
| UN38.3 | Not applicable to lead-acid batteries |

Exemptions require suitable evidence of non-spillability and compliant preparation for carriage. Protect batteries against short circuits, movement and damage. Secure installed batteries and prevent unintended activation. Assess the actual shipping configuration of the system separately. An exemption for a battery block is not a blanket transport approval for the complete equipment.

Do not ship leaking, damaged or unverified non-spillable batteries under these exemptions. Have a competent person determine classification, packaging and transport conditions before dispatch; UN 2794 may apply to spillable acid-filled batteries.

## SECTION 15: Regulatory information

Safety information for an article, arranged in 16 sections. Observe REACH, CLP as applicable to released substances/mixtures, EU Batteries Regulation (EU) 2023/1542 and applicable occupational, environmental and waste requirements. Collect batteries separately; observe the crossed-out wheeled bin and Pb marking. Do not transfer a substance or mixture classification to the intact complete system.

## SECTION 16: Other information

**Revision 1.0 / 15 October 2026.** Article-specific version for NVKS403WLSE using battery OGIV12170LP. Ratings refer to one battery block. Information supports safe handling and does not replace the system instructions. AGM: absorbent glass mat; VRLA: valve-regulated lead-acid; CAS: substance identifier. Sources and assignment evidence are maintained internally.