

Material Safety Data Sheet for all NiCd cells

1. IDENTIFICATION

PRODUCT NAME: DYNAMIS NC-LINE (NiCd cells and batteries)

EMERGENCY TELEPHONE NUMBER: ++49(0)7533/93669-0

CUSTOMER SERVICE TELEPHONE NUMBER: ++49(0)7533/93669-91

MANUFACTURER, CONTACT: DYNAMIS Batterien GmbH Brühl 15 78465 Dettingen/Konstanz, Germany
www.dynamis-batteries.com

2. HAZARDOUS INFORMATION

Hazardous Components

Description: Cadmium

Ni(OH)₂ (Nickel Hydroxide)

KOH Solution (Potassium Hydroxide)

3. PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	N.A.	Specific Gravity (H ₂ O=1):	N.A.
Vapor Pressure (mm Hg):	N.A.	Melting Point:	N.A.
Vapor Density (AIR=1):	N.A.	Evaporation Rate (Butyl Acetate):	N.A.
Solubility in Water:	N.A.		
Appearance and Odor:	Cylindrical Shape, odorless		

4. HAZARD CLASSIFICATION

Classification: N.A.

5. REACTIVITY DATA

Stability

Unstable:	No	Conditions to Avoid:	N.A.
Stable:	Yes		

Incompatibility (Materials to Avoid) / Hazardous Decomposition or Byproducts

Hazardous Polymerization:	Will not Occur May Occur	Conditions to Avoid:	N.A.
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6. HEALTH HAZARD DATA

Route(s) of Entry

Inhalation	Skin	Ingestion
N.A.	N.A.	N.A.

Health Hazard (Acute and Chronics) / Toxicological information

- In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.
- Contact with electrolyte can cause severe irritation and chemical burns.
- Inhalation of electrolyte vapors may cause irritation of the upper respiratory tract and lungs.

7. FIRST AID MEASURES

First Aid Procedures

- If electrolyte leakage occurs and makes contact with skin, wash with plenty of water immediately.
- If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen (15) minutes, and contact a physician.
- If electrolyte vapors are inhaled, provide fresh air and seek medical attention if respiratory irritation develops. Ventilate the contaminated area.

8. FIRE AND EXPLOSION HAZARD DATA

Flash point (Method Used):	N.A.	Flammable Limits:	N.A.
Ignition Temp.:	N.A.	LEL:	N.A.
		UEL:	N.A.

Extinguishing Media

Carbon Dioxide, Dry Chemical or Foam extinguishers

Special Fire Fighting Procedures

N.A.

Special Fire and Explosion Hazards

- Do not dispose of battery in fire – may explode
- Do not short-circuit battery – may cause burns.

9. ACCIDENTAL RELEASE OR SPILLAGE

Steps to be taken in case material is released or spilled

- Batteries that are leakage should be handled with rubber gloves.
- Avoid direct contact with electrolyte.
- Wear protective clothing and a positive pressure self-contained breathing apparatus (SCBA).

10. HANDLING AND STORAGE

Safe handling and storage advice

- Batteries should be handled and stored carefully to avoid short circuits.
- Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries.
- Never disassemble a battery.
- Do not breathe cell vapors or touch internal material with bare hands.
- Keep batteries between -30°C and +35°C for prolonged storage.

11. EXPOSURE CONTROLS / PERSON PROTECTION

Occupational Exposure Limits: LTEP N.A.		STEP N.A.
Respiratory Protection (Specify Type) N.A.		
Ventilation	Local Exhausts N.A.	Special N.A.
	Mechanical (General) N.A.	Other N.A.
Protective Gloves N.A.		Eye Protection N.A.
Other Protective Clothing or Equipment N.A.		
Work / Hygienic Practices N.A.		

12. ECOLOGICAL INFORMATION

N.A.

13. DISPOSAL METHOD

Dispose of batteries according to government regulations.

14. TRANSPORTATION INFORMATION

DYNAMIS batteries are considered to be "Dry cell" batteries and are unregulated for purpose of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA) and International Maritime Dangerous Goods Regulations (IMDG). The only DOT requirement for shipping these batteries is special provision 130 which states: Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (For example, by the effective insulation of exposed terminals). As of 1/1/97 IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting.

15. REGULATORY INFORMATION

Special requirement be according to the local regulatoryies.

16. OTHER INFORMATION

The data in this Material Safety Data Sheet relates only to the specific material designated herein.

17. MEASURES FOR FIRE EXTINCTION

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture. Fire fighters should wear self-contained breathing apparatus.