



WorleyParsons

resources & energy

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

PRODUCT NAME: DRY BATTERIES.

MODEL: 14430

EDITION DATE: 12/09/2004

APPROVED BY: DR. MENG XIANGCHENG

2. INGREDIENTS

INGREDIENTS NAME	PEL	(Approx. Content)%	TLV
Ni	None Established	35.00	None Established
Co	0.047mg/cbm	1.60	0.019mg/cbm
Metal Alloy(Ni;La;Ce;Mn;Al;Co)	None Established	37.00	None Established
Fe	2.43mg/cbm	18.00	2.46mg/cbm
DEC	None Established	2.00	None Established
EC	None Established	2.00	None Established
Cu	None Established	4.4000	None Established

Content under 0.0000001% is ignored

3. PHYSICAL DATA

BOILING POINT @760 MM HG(°C):	NA
VAPOR PRESSURE (MM HG @ 25°C):	NA
VAPOR DENSITY (AIR=1):	NA
DENSITY (GRAMS/CC):	NA
PERCENT VOLATILE BY VOLUME (%):	NA
EVAPORATION RATE (BUTYL ACETATE =1):	NA
PHYSICAL STATE:	NA
SOLUBILITY IN WATER (% BY WEIGHT):	NA
PH:	NA
APPEARANCE AND ODOR:	geometric solid object

4. FIRE & EXPLOSION HAZARD DATA

FLASH POINT: NA LOWER(LEL): NA
FLAMMABLE LIMITS IN AIR (%): NA UPPER(UEL): NA
EXTINGUISHING MEDIA: Use water, foam or dry power, as appropriate
AUTO-IGNITION: NA
SPECIAL FIRE FIGHTING PROCEDURE: As with any fire, wear self-contained breathing apparatus to avoid inhalation of hazardous decomposition products (see section 2).

SPECIAL FIRE EXPLOSION HAZARDS: Like any sealed container, battery cells may rupture when exposed to excessive heat: this could result in the release of flammable or corrosive materials.

5. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE(TLV) AND SOURCE: NA

EFFECTS OF OVEREXPOSURE: None. (In fire or rupture situation see section 2 and section 4)

EMERGENCY FIRST AID PROCEDURE:

Skin and Eyes:

In the event that battery rupture, flush with copious quantities of water. Get immediate medical attention for eyes. Wash skin with soap and water.

Swallowing:

Ingestion of a battery can be harmful. Call The National Battery Ingestion Hotline or consult doctors in the nearest hospital for advise and follow up.

6. REACTIVITY DATA

STABLE OR UNSTABLE: STABLE
INCOMPATIBILITY (MATERIALS TO AVOID): NA
HAZARDOUS DECOMPOSITION PRODUCTS: NA
DECOMPOSITION TEMPERATURE (0° F) NA
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Avoid electrical shorting

7. SPILL OR LEAK PROCEDURES

PROCEDURES TO CONTAIN AND CLEAN UP LEAKS OR SPILLS: In the event of a battery rupture, collect all released material in a plastic lined metal container.

REPORTING PROCEDURE: Report all spills in accordance with Federal, State and Local reporting requirements.

WASTE DISPOSAL METHOD: This type of cell is Non-Hazardous per USEPA Criteria. Dispose of according to appropriate Local, State and Federal waste regulations.

8. PROTECTION INFORMATION

RESPIRATION PROTECTION (SPECIFY TYPE):	NA
VENTILATION:	
Local Exhaust:	NA
Mechanical (General):	NA
Special:	NA
Other:	NA
PROTECTION GLOVES:	NA
EYE PROTECTION:	NA
OTHER PROTECTIVE CLOTHING:	NA

9. SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Store in a dry place. Storing unpackaged cells together could result in cell shorting and heat build-up.

TRANSPORTATION-SHIPING: These are "batteries, dry" and are not considered to be a "hazardous material" per U.S. DOT regulations or "dangerous goods" per IATA (International Air Transport Association) Regulations.

10. SARA 313

Notification is not required because these products are article(s) that do not release a covered toxic chemical under the normal conditions of processing or use.

NOTICE: The information and recommendations set forth are made in good faith and are believed to be accurate at the date of preparation.