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Datum 22.02.2019

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Sicherheitsdatenblatt

Verwendung von Akkumulatoren in Leuchten

Paulmann
Artikel Nr.: 942.34

Bezeichnung: Outdoor Solar Stufen/Treppenleuchte IP44 3000K
Metall/Kunststoff Grau

Adresse: Quezinger Feld 2, 31832 Springe-Völksen
Tel.: +49 5041 998-0
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In dem zuvor genannten Produkt wird ein Akkumulator gemäß nachstehendem Sicherheitsdatenblatt verwendet.

Freundliche Grüße aus Völksen

i.V. Boris Schomann
Leiter Qualitätssicherung

Geschäftsführer:
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Report No.: MLIWRXYW28419716

MSDS Report

Sample Description
& Model

NI-MH RECHARGEABLE BATTERY AA

Applicant

J&Y TECHNOLOGY CO.,LTD

Address

Henggangling, Chanjing, Xinxu Town, Huiyang
District, HuiZhou City, Guangdong, China

No.: MLIWRXYW28419716
Code: j0jw5b94



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Hotline 400-819-5688

北京实验室: (010) 82618116

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新疆实验室: (0991) 6684186

郑州实验室: (0371) 69350670

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厦门实验室: (0592) 5568048



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Material Safety Data Sheet

Reference to ST/SG/AC.10/30/Rev.7 (GHS)

Section 1 - Chemical Product and Company Identification

Chemical product identification

Sample Description: NI-MH RECHARGEABLE BATTERY

Sample Model: AA

Recommended Uses: N/A

Restrictions on use: N/A

Supplier name: J&Y TECHNOLOGY CO.,LTD

Address: Henggangling, Chanjing, Xinxu Town, Huiyang District, HuiZhou City,
Guangdong, China

Phone number: 0752-3335961

FAX: 0752-3335962

E-mail: JESSICA@JYBATTERY.NET

Emergency phone number: 0752-3335961

Section 2 - Hazards Identification

Emergency overview: This product is an article which contains a chemical substance. Safety information is given for exposure to the article as sold. Intended use of the product should not result in exposure to the chemical substance. This is a battery. In case of rupture: the below hazards exist.

CAS# 7440-02-0

Classification according to GHS

Sensitisation, respiratory (1, 1A, 1B)

Sensitisation, skin (1, 1A, 1B)

Carcinogenicity (2)

Specific target organ toxicity, single exposure (1) (kidney)

Specific target organ toxicity, repeated exposure (1) (respiratory system)

Hazardous to the aquatic environment, long-term hazard (4)

Label elements


Hazard pictogram(s):

Signal word:

Danger

Hazard statement(s):

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer

H370 Causes damage to organs(kidney)

H372 Causes damage to organs through prolonged or repeated exposure (respiratory system)

H413 May cause long lasting harmful effects to aquatic life

Precautionary statement(s):
Prevention:

P284 [In case of inadequate ventilation] wear respiratory protection.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, protective clothing, eye protection, face protection.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response:

P304 + P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

P302 + P352 IF ON SKIN: Wash with plenty of water.

P333 + P313 If skin irritation or rash occurs: Get medical advice.

P321 Specific treatment.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P308 + P313 IF exposed or concerned: Get medical advice.

P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor.

P314 Get medical advice if you feel unwell.

Storage

P405 Store locked up.

Disposal:

P501 Contents or container handling to approved waste treatment plants.



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CAS# 7440-48-4
Classification according to GHS

Sensitisation, respiratory (1,1A, 1B)

Sensitisation, skin (1,1A, 1B)

Carcinogenicity (2)

Reproductive toxicity (2)

Specific target organ toxicity, single exposure; Respiratory tract irritation (3)

Specific target organ toxicity, repeated exposure, respiratory system (1)

Hazardous to the aquatic environment, long-term (4)

Label elements
Hazard pictogram(s):

Signal word:

Danger

Hazard statement(s):

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer

H361 Suspected of damaging fertility or the unborn child

H335 May cause respiratory irritation

H372 Causes damage to organs through prolonged or repeated exposure(respiratory system)

H413 May cause long lasting harmful effects to aquatic life

Precautionary statement(s):
Prevention:

P284 In case of inadequate ventilation wear respiratory protection.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, protective clothing, eye protection, face protection.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P271 Use only outdoors or in a well-ventilated area.

P260 Do not breathe dust, fume, gas, mist, vapours, spray.

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response:

P304 + P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER.



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- P302 + P352 IF ON SKIN: Wash with plenty of water.
 P333 + P313 If skin irritation or rash occurs: Get medical advice.
 P321 Specific treatment (See additional emergency instructions).
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P308 + P313 IF exposed or concerned: Get medical advice.
 P314 Get medical advice if you feel unwell.

Storage

- P405 Store locked up.
 P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal:

- P501 Contents handling to approved waste treatment plants.

CAS# 7440-50-8

Classification according to GHS

Sensitisation, skin (1, 1A, 1B)

Specific target organ toxicity, single exposure (1) (digestive system)

Specific target organ toxicity, single exposure; Respiratory tract irritation (3)

Label elements

Hazard pictogram(s):



Signal word:

Danger

Hazard statement(s):

- H317 May cause an allergic skin reaction
 H370 Causes damage to organs (digestive system)
 H335 May cause respiratory irritation

Precautionary statement(s):

Prevention:

- P260 Do not breathe dust, fume.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P280 Wear protective gloves, eye protection, face protection.
 P264 Wash skin and clothing thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.

Response:

- P302 + P352 IF ON SKIN: Wash with plenty of water.

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- P333 + P313 If skin irritation or rash occurs: Get medical advice.
 P321 Specific treatment (See additional emergency instructions).
 P362 + P364 Take off contaminated clothing and wash it before reuse.
 P308 + P311 IF exposed or concerned: Call a POISON CENTER.
 P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P312 Call a POISON CENTER if you feel unwell.

Storage

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.

Disposal:

- P501 Contents handling to approved waste treatment plants.

CAS# 7439-96-5

Classification according to GHS

- Skin corrosion/irritation (3)
 Serious eye damage/eye irritation (2B)
 Reproductive toxicity (1A, 1B)
 Specific target organ toxicity, repeated exposure (1) (respiratory system, nervous system)
 Hazardous to the aquatic environment, long-term (4)

Label elements

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

- H316 Causes mild skin irritation
 H320 Causes eye irritation
 H360 May damage fertility or the unborn child
 H372 Causes damage to organs through prolonged or repeated exposure(1) (respiratory system, nervous system)
 H413 May cause long lasting harmful effects to aquatic life

Precautionary statement(s):

Prevention:

- P264 Wash skin and clothing thoroughly after handling.
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.



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P280 Wear protective gloves, protective clothing, eye protection, face protection.

P260 Do not breathe dust, fume, gas, mist, vapours and spray.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response:

P332 + P313 If skin irritation occurs: Get medical advice.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice.

P308 + P313 IF exposed or concerned: Get medical advice.

P314 Get medical advice if you feel unwell.

Storage

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 7440-66-6

Classification according to GHS

Serious eye damage/eye irritation (2B)

Hazardous to the aquatic environment, long-term hazard (1)

Label elements

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

H320 Causes eye irritation

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

Prevention:

P264 Wash skin and clothing thoroughly after handling.

P273 Avoid release to the environment.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice.



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P391 Collect spillage.

Storage

None

Disposal:

P501 Contents handling to approved waste treatment plants.

CAS# 1310-58-3

Classification according to GHS

Acute toxicity, oral (3)

Skin corrosion/irritation (1A, 1B, 1C)

Serious eye damage/eye irritation (1)

Specific target organ toxicity, single exposure (1) (respiratory system)

Aspiration hazard (1)

Label elements

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

H301 Toxic if swallowed

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H370 Causes damage to organs(respiratory system)

H304 May be fatal if swallowed and enters airways

Precautionary statement(s):

Prevention:

P264 Wash skin and clothing thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P260 Do not breathe dust, fume, gas, mist, vapours, spray.

P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P321 Specific treatment (See additional emergency instructions).

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

P363 Wash contaminated clothing before reuse.



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P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTER.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P311 IF exposed or concerned: Call a POISON CENTER.

Storage

P405 Store locked up.

Disposal:

P501 Contents handling to approved waste treatment plants.

Other hazards

Physical and chemical hazards: See Section 10

Human health hazards: See Section 11

Environmental hazards: See Section 12

Section 3 – Composition/Information on Ingredients

Chemical characterization: Mixture

Chemical Composition	CAS No.	EC#	Weight (%)
Nickel	7440-02-0	231-111-4	30~60
Cobalt	7440-48-4	231-158-0	10~30
Iron	7439-89-6	231-096-4	10~30
Copper	7440-50-8	231-159-6	3~7
Manganese	7439-96-5	231-105-1	1~5
Zinc	7440-66-6	231-175-3	1.5
Potassium hydroxide	1310-58-3	215-181-3	1~5

Section 4 - First Aid Measures

Description of first aid measures

General information No special measures required.

After eye contact

Flush eyes with plenty of water for several minutes while holding eyelids open. Get medical attention if irritation persists.



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After skin contact

Remove contaminated clothing and shoes. Immediately wash with water and soap and rinse thoroughly. Wash clothing and shoes before reuse. If irritation occurs, get medical attention.

After inhalation

Remove victim to fresh area. Administer artificial respiration if breathing is difficult. Seek medical attention.

After swallowing

Do not induce vomiting. Get medical attention.

Personal protective equipment for first-aid responders:

No data available.

Most important symptoms/effects, acute and delayed:

No data available.

Indication of immediate medical attention and special treatment needed:

No data available.

Section 5 - Fire Fighting Measures

Suitable extinguishing media:

Use extinguishing agent suitable for local conditions and the surrounding environment .
Such as dry powder , CO₂.

Unsuitable extinguishing media:

No data available.

Specific Hazards arising from the chemical:

Special hazards arising from the substance or mixture

Battery may burst and release hazardous decomposition products when exposed to a fire situation. Some may burn but none ignite readily. Containers may explode when heated. Some may be transported hot.

Specific protective actions for fire-fighters:

Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit.

Section 6 - Accidental Release Measures

Personal precautions:

Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation

Protective equipment:

No data available.

Emergency procedures:



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Remove ignition sources, evacuate area. Sweep up using a method that does not generate dust. Collect as much of the spilled material as possible, placed the spilled material into a suitable disposal container. Keep spilled material out of sewers, ditches and bodies of water.

Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Methods and materials for containment and cleaning up:

All waste must refer to the United Nations, the national and local regulations for disposal.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7 - Handling and Storage

Precautions for safe handling:

Consumption of food and beverage should be avoided in work areas.

Wash hands with soap and water before eating, drinking.

Ground containers when transferring liquid to prevent static accumulation and discharge.

Information about fire and explosion protection

Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures. Do not short or install with incorrect polarity.

Conditions for safe storage, including any incompatibilities:

Requirements to be met by storerooms and receptacles

Store in a cool, dry, well-ventilated place.

Information about storage in one common storage facility

Keep away from heat, avoiding the long time of sunlight.

Further information about storage conditions

Keep container tightly sealed.

Specific and use

No data available.

Section 8 - Exposure Controls/Personal Protection

Control parameters

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青岛实验室: (0532) 88706866	哈尔滨实验室: (0451) 88104651	宁波实验室: (0574) 87736499	广州实验室: (020) 89224310
天津实验室: (022) 27360730	大连实验室: (0411) 84650820	杭州实验室: (0571) 87219096	武汉实验室: (027) 83997127
新疆实验室: (0991) 6684186	郑州实验室: (0371) 69350670	苏州实验室: (0512) 62997900	厦门实验室: (0592) 5568048



CAS No.	ACGIH	NIOSH	OSHA
7440-02-0	TLV-TWA 1.5mg/m ³	REL-TWA 0.015mg/m ³	PEL-TWA 1mg/m ³
7440-48-4	TLV-TWA 0.02mg/m ³	REL-TWA 0.05mg/m ³	PEL-TWA 0.1mg/m ³
7439-89-6	N/A	N/A	N/A
7440-50-8	TLV-TWA 0.2mg/m ³ TLV-TWA 1mg/m ³	REL-TWA 1mg/m ³ REL-TWA 0.1mg/m ³	PEL-TWA 0.1mg/m ³ PEL-TWA 1mg/m ³
7439-96-5	TLV-TWA 0.02mg/m ³ TLV-TWA 0.1mg/m ³	REL-TWA 1mg/m ³ REL-STEL 3mg/m ³	N/A
7440-66-6	N/A	N/A	N/A
1310-58-3	TLV-Peak 2mg/m ³	REL-Peak 2mg/m ³	N/A

Appropriate engineering controls:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Personal Protective Equipment

Respiratory protection: Wear suitable protective mask in order to reduce the respiratory system. A large number of leakage, wear chemical protective clothing, including self-contained breathing apparatus.

Hand Protection: Wear appropriate protective gloves to reduce skin contact.

Eyes Protection: Wear safety goggles or eye protection combined with respiratory protection.

Skin and Body Protection: Working environment required, wear suitable protective clothing to minimize contact with skin. The type of protective equipment must be according to the concentration and the content of certain hazardous substances in the workplace.

Section 9 - Physical and Chemical Properties

Information on basic physical and chemical properties

General information

Appearance:	Green.
Form:	Cylindrical.
Odour:	Not available.



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Odour threshold:	Not available.
pH:	Not available.
Melting point/freezing point:	Not available.
Initial boiling point and boiling range:	Not available.
Flash Point:	Not available.
Evaporation rate:	Not available.
Flammability (solid, gas):	Not available.
Explosion Limits (vol% in air):	Not available.
Vapour pressure, kPa at 20°C:	Not available.
Vapor density:	Not available.
Density/Relative density (water = 1):	Not available.
Solubility(ies):	Not available.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Other information:	
Voltage	1.2V

Section 10 - Stability and Reactivity

Reactivity: No data available.

Chemical stability: Stable.

Possibility of hazardous reactions: No data available.

Conditions to Avoid: Flames, sparks, and other sources of ignition, incompatible materials.

Incompatibilities materials: Oxidizing agents, acid, base.

Hazardous decomposition products: Carbon monoxide, carbon dioxide.

Section 11 - Toxicological Information

Acute Toxicity:

CAS No.	LC50/LD50
7440-02-0	LD50 Rat (oral): >9000mg/kg
7440-48-4	LD50 Rat (oral): 6171mg/kg
7439-89-6	No data available.



7440-50-8	No data available.
7439-96-5	LD50 Rat (oral): 9000mg/kg
7440-66-6	LD50 Rat (oral): >2000mg/kg
1310-58-3	LD50 Rat (oral): 284mg/kg

Skin irritation/corrosion:

Eye damage/irritation: No data available.

Respiratory or Skin sensitisation: No data available.

Reproductive Cell Mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive Toxicity: No data available.

Specific target organ toxicity-Single exposure: No data available.

Specific target organ toxicity-Repeated exposure: No data available.

Aspiration hazard: No data available.

Potential Health Effects: No data available.

Inhalation: No data available.

Skin contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Section 12 - Ecological Information

Ecological Toxicity:

CAS# 7440-66-6

ErC50: 0.15 mg/L - Algae (*Pseudokirchneriella subcapitata*) - 72h

Persistence and degradability: No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other adverse effects: No data available.

Section 13 - Disposal Considerations

Disposal methods:

Recommendation:

Consult state, local or national regulations to ensure proper disposal.



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Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Section 14 - Transport Information

UN Number	
IATA, IMDG, Model Regulation	N/A
UN Proper shipping name	
IATA, IMDG, Model Regulation	N/A
Transport hazard class(es)	
IATA, IMDG, Model Regulation	Not Subjected for transport of dangerous goods
Packing group	
IATA, IMDG, Model Regulation	N/A
Packaging Sign	
IATA, IMDG, Model Regulation	N/A
Environmental hazards	
Marine pollutant:	No
Special precautions for user	Not applicable.

Transport information: NI-MH RECHARGEABLE BATTERY AA is exempt from dangerous goods. It is considered non-dangerous goods by the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA) DGR 59th, IATA Special Provisions A199, International Maritime Dangerous Goods Regulations (IMDG) (38-16), or the 《Recommendations on the Transport of Dangerous Goods Model Regulations》 (20th).

S.P.A199 The UN number UN 3496 is only applicable in sea transport. Nickel-metal hydride battery or nickel-metal hydride battery-powered devices, equipment or vehicles having the potential of a dangerous evolution of heat are not subject to these Regulations provided they are prepared for transport so as to prevent:

- (a) a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- (b) unintentional activation.

The words "Not Restricted" and the Special Provision number must be included in the description of the substance on the Air Waybill as required by 8.2.6, when an Air Waybill is



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issued.

Separate batteries when shipping to prevent short-circuiting. They should be packed in strong packaging for support during transport.

Note: Products weighing less than 100kg in the Container. (By sea).

Transport Fashion: By air, by sea, by railway, by road.

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

CAS No.	TSCA	IECSC	DSL/NDSL	EINECS/ ELINCS/ NLP
7440-02-0	Listed	Listed	Listed DSL	Listed
7440-48-4	Listed	Listed	Listed DSL	Listed
7439-89-6	Listed	Listed	Listed DSL	Listed
7440-50-8	Listed	Listed	Listed DSL	Listed
7439-96-5	Listed	Listed	Listed DSL	Listed
7440-66-6	Listed	Listed	Listed DSL	Listed
1310-58-3	Listed	Listed	Listed DSL	Listed

Section 16 - Other Information

Issue Time: 2018-01-02

Issue Department: Technical department

Modification record:

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Other Information:



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CAS: (Chemical Abstracts Service);
 EC: (European Commission);
 ACGIH: (American Conference of Governmental Industrial Hygienists);
 NIOSH: (US National Institute for Occupational Safety and Health);
 OSHA: (US Occupational Safety and Health);
 TLV: (Threshold Limit Value)
 TWA: (Time Weighted Average);
 STEL: (Short Term Exposure Limit);
 PEL: (Permissible Exposure Level);
 REL: (Recommended Exposure Limit);
 PC-STEL: (Permissible concentration-time weighted average);
 PC-TWA: (Permissible concentration-short time exposure limit);
 LC50: (Lethal concentration, 50 percent kill);
 LD50: (Lethal dose, 50 percent kill);
 IARC: (International Agency for Research on Cancer);
 EC50: (Median effective concentration);
 BCF: (Bioconcentration Factor);
 BOD: (Biochemical oxygen demand);
 NOEC: (No observed effect concentration);
 NTP: (US National Toxicology Program);
 RTECS: (Registry of Toxic Effects of Chemical Substances);
 IATA: (International Air Transport Association);
 IMDG: (International Maritime Dangerous Goods);
 TDG: (Recommendations on the TRANSPORT OF DANGEROUS GOODS Model Regulations);
 TOC: (Total Organic Carbon);
 TSCA: (Toxic Substances Control Act of USA);
 DSL: (the Domestic Substances List of Canada);
 NDSL: (the Non-domestic Substances List of Canada)

End of report