

# SAFETY DATA SHEET

Air Wick Freshmatic - Fresh Waters



HEALTH • HYGIENE • HOME

## 1. Product and company identification

- Product name** : Air Wick Freshmatic - Fresh Waters
- Distributed by** : Reckitt Benckiser LLC.  
Morris Corporate Center IV  
399 Interpace Parkway (P.O. Box 225)  
Parsippany, New Jersey 07054-0225  
+1 973 404 2600
- Emergency telephone number (Medical)** : 1-800-338-6167
- Emergency telephone number (Transport)** : 1-800-424-9300 (U.S. & Canada) CHEMTREC  
Outside U.S. and Canada (North America), call Chemtrec:703-527-3887
- Website:** : <http://www.rbnainfo.com>
- Product use** : Air care, instant action (aerosol sprays)

This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure, in accordance with the requirements of USDOL Occupational Safety and Health Administration.

This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations, and shown in Section 15 of this SDS.

- SDS #** : D8179373 v4.0
- Formulation #:** : #0151361 v4.0

## 2. Hazards identification

- Classification of the substance or mixture** : FLAMMABLE AEROSOLS - Category 1  
GASES UNDER PRESSURE - Liquefied gas  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 28.6%

### GHS label elements

#### Hazard pictograms



- Signal word** : Danger
- Hazard statements** : Extremely flammable aerosol.  
Contains gas under pressure; may explode if heated.

#### Precautionary statements

**Code #** : FF0151361  
(D8179373) US

**SDS #** : D8179373 v4.0

**Date of issue** : 18/10/2016

1/14

D8179373 v4.0

## 2. Hazards identification

- General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- Prevention** : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
- Response** : Not applicable.
- Storage** : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.
- Disposal** : Not applicable.
- Supplemental label elements** : None known.
- Hazards not otherwise classified** : None known.

## 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated light	> 60	64742-47-8
propane	15 - 30	74-98-6
isopropyl myristate	1 - 2.5	110-27-0
butane	1 - 2.5	106-97-8
1,1-difluoroethane	1 - 2.5	75-37-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

## 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

D8179373 v4.0

## 4. First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
 irritation  
 redness
- Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing
- Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

## 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

- Specific hazards arising from the chemical** : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

D8179373 v4.0

## 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 halogenated compounds  
 carbonyl halides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

D8179373 v4.0

## 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

### Control

#### Occupational exposure limits

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated light	<b>ACGIH TLV (United States, 4/2014).</b> <b>Absorbed through skin.</b> TWA: 200 mg/m <sup>3</sup> , (as total hydrocarbon vapor) 8 hours.
propane	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 1000 ppm 10 hours. TWA: 1800 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 1000 ppm 8 hours. TWA: 1800 mg/m <sup>3</sup> 8 hours.
butane	<b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 800 ppm 8 hours. TWA: 1900 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2013).</b> TWA: 800 ppm 10 hours. TWA: 1900 mg/m <sup>3</sup> 10 hours. <b>ACGIH TLV (United States, 6/2013).</b> STEL: 1000 ppm 15 minutes.
1,1-difluoroethane	<b>AIHA WEEL (United States, 10/2011).</b> TWA: 1000 ppm 8 hours.

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

D8179373 v4.0

## 8. Exposure controls/personal protection

- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid. [Aerosol.]
- Color** : Not available.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : <34°C (<93.2°F)
- Flash point** : Closed cup: <0°C (<32°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.

D8179373 v4.0

## 9. Physical and chemical properties

**Lower and upper explosive (flammable) limits** : Not available.

**Vapor pressure** : Not available.

**Vapor density** : Not available.

**Relative density** : 0.66 to 0.70

**Solubility** : Not available.

**Partition coefficient: n-octanol/water** : Not available.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Not available.

**Flow time (ISO 2431)** : Not available.

### Aerosol product

**Type of aerosol** : Spray

**Heat of combustion** : 40.62 kJ/g

## 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).

**Incompatible materials** : Do not mix with household chemicals.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
isopropyl myristate	LD50 Dermal	Rabbit	5 g/kg	-
butane	LC50 Inhalation Vapor	Rat	658000 mg/m <sup>3</sup>	4 hours

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
isopropyl myristate	Skin - Moderate irritant	Guinea pig	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Human	-	72 hours 85 milligrams Intermittent	-
	Skin - Mild irritant	Rat	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 426 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 milligrams	-

D8179373 v4.0

# 11. Toxicological information

## Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.
- Eyes** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

## Sensitization

Not available.

## Conclusion/Summary

- Skin** : Based on available data, the classification criteria are not met.
- Respiratory** : Based on available data, the classification criteria are not met.

## Mutagenicity

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

## Carcinogenicity

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

## Reproductive toxicity

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

## Teratogenicity

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.

## Specific target organ toxicity (single exposure)

Not available.

## Specific target organ toxicity (repeated exposure)

Not available.

## Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light	ASPIRATION HAZARD - Category 1

- Information on the likely routes of exposure** : Not available.

## Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

## Symptoms related to the physical, chemical and toxicological characteristics



D8179373 v4.0

## 11. Toxicological information

- Eye contact** : Adverse symptoms may include the following:  
irritation  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

- Conclusion/Summary** : Based on available data, the classification criteria are not met.
- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Dermal	244184.6 mg/kg

## 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Distillates (petroleum), hydrotreated light	Acute LC50 2200 µg/l Fresh water	Fish - Lepomis macrochirus	4 days

### Persistence and degradability

Not available.

D8179373 v4.0

## 12. Ecological information

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
propane	1.09	-	low
isopropyl myristate	7.71	2765	high
butane	2.89	-	low
1,1-difluoroethane	1.13	-	low

### Mobility in soil




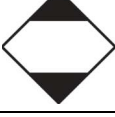

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1950	Aerosols	2.1	-		Limited quantity
TDG Classification	UN1950	AEROSOLS	2.1	-		Limited quantity
Mexico Classification	UN1950	AEROSOLS	2.1	-		Limited quantity
IMDG Class	UN1950	AEROSOLS	2.1	-		Limited quantity
IATA-DGR Class	UN1950	Aerosols, flammable	2.1	-		See DG List

D8179373 v4.0

## 14. Transport information

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

PG\* : Packing group

## 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** 2-(4-tert-butylbenzyl)propionaldehyde; decanal; 2-methylundecanal; 4-(4-hydroxy-4-methylpentyl)cyclohex-3-enecarbaldehyde; 7-hydroxycitronellal;  $\alpha$ -hexylcinnamaldehyde; cinnamaldehyde  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**United States inventory (TSCA 8b):** Not determined.  
**Clean Water Act (CWA) 307:** toluene  
**Clean Water Act (CWA) 311:** toluene  
**Clean Air Act (CAA) 112 regulated flammable substances:** propane; 1, 1-difluoroethane; butane

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : Fire hazard  
Sudden release of pressure

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
propane	15 - 30	Yes.	Yes.	No.	No.	No.
isopropyl myristate	1 - 2.5	No.	No.	No.	Yes.	No.
butane	1 - 2.5	Yes.	Yes.	No.	No.	No.
1,1-difluoroethane	1 - 2.5	Yes.	Yes.	No.	No.	No.

### State regulations

**Code #** : FF0151361  
(D8179373) US

**SDS #** : D8179373 v4.0

**Date of issue** : 18/10/2016

11/14

D8179373 v4.0

## 15. Regulatory information

- Massachusetts** : The following components are listed: PROPANE; DIFLUOROETHANE; BUTANE
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: PROPANE; 1,1-DIFLUOROETHANE; ETHANE, 1, 1-DIFLUORO-; BUTANE
- Pennsylvania** : The following components are listed: PROPANE; BUTANE

### Canada

- WHMIS (Canada)** : Class B-2: Flammable liquid  
Class B-5: Flammable aerosol.  
Class D-2B: Material causing other toxic effects (Toxic).

### Canadian lists

- Canadian NPRI** : The following components are listed: Hydrotreated light distillate; Propane; Volatile organic compounds; Butane (all isomers)
- CEPA Toxic substances** : The following components are listed: Volatile organic compounds
- Canada inventory** : Not determined.

### Label elements

- Signal word** : CAUTION
- Hazard statements** : Eye Irritant. May be harmful if inhaled. May cause allergic reactions in certain individuals. CONTENTS UNDER PRESSURE.
- Precautionary measures** : Keep out of the reach of children. DO NOT spray towards face or body. DO NOT get in eyes. Avoid contact with skin. CONTAINER MAY EXPLODE IF HEATED. DO NOT puncture or incinerate container. DO NOT expose to heat or store at temperatures above 120F (49C). DO NOT position near heat or electrical sources. DO NOT spray into open flames. DO NOT spray directly onto surfaces. In case of contact with surfaces, wipe immediately with damp cloth. Use in well-ventilated rooms away from sleeping areas. For adult use only. Product is not a toy. Contains propellants, petroleum solvent and fragrance.

NOTE TO PARENTS: Use only as directed. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Help stop inhalant abuse. For more information visit [www.inhalant.org](http://www.inhalant.org).

- Recommendations** : People suffering from perfume sensitivity should be cautious when using this product. Air Fresheners do not replace good hygiene practices.

## 16. Other information

**Hazardous Material Information System (U.S.A.)** :

Health	*	2
Flammability		3
Physical hazards		0
Personal protection		B

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

D8179373 v4.0

## 16. Other information

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



NFPA (30B) aerosol Flammability Level 3

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Key to abbreviations** :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

**Date of issue** : 18/10/2016

**Date of previous issue** : 22/04/2016.

**Version** : 4

**Prepared by** : Reckitt Benckiser LLC.  
Product Safety Department  
1 Philips Parkway  
Montvale, New Jersey 07646-1810 USA.  
FAX: 201-476-7770

**Revision comments** : Revision to Section 3 Ingredient list.

Indicates information that has changed from previously issued version.

### 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.

D8179373 v4.0

## 16. Other information



RB is a member of the CSPA Product Care Product Stewardship Program.

## 1. Identification

### (a) Product identifier

Product name: Alkaline Manganese Dioxide-Zinc Battery

### (b) Other means of identification

Product description: Type: LR03 (AAA) ; LR6 (AA) ; LR14 (C) ; LR20 (D) ; LR61 (AAAA) ; 6LR61 (9V)

### (c) Recommended use of the chemical and restrictions on use

Recommended use: Alkaline battery  
Restriction on use: No information available.

### (d) Details of the supplier of the product

Company name: Fujian Nanping Nanfu Battery Co., Ltd.  
Address: 109 Industry Road, Nanping, Fujian, P.R.C., 353000  
E-mail: Service@nanfu.com  
Telephone: +86 599 8735117

### (e) Emergency phone number

+86 599 8735117

## 2. Hazard(s) identification

### (a) Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)  
This product is an article which is a sealed battery and as such does not require an MSDS per the OSHA hazard communication standard unless ruptured. The hazards indicated are for a ruptured battery.

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure) Category	Category 1

### (b) GHS Label elements, including precautionary statements

#### Emergency Overview

<b>Signal word</b>	<b>Danger</b>
<b>Hazard Statements</b>	
Causes skin irritation	
Causes serious eye damage	
	

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 above hazards exist.

**Appearance** Silver

**Physical State** Solid

**Odor** Odorless

### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray  
Do not eat, drink or smoke when using this product

### Precautionary Statements - Response

Specific treatment (see supplemental first aid instructions on this label)  
Get medical advice/attention if you feel unwell

### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician

### Skin

IF ON SKIN: Wash with plenty of soap and water  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse

### Precautionary Statements - Storage

No information available.

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### *(c) Hazards not otherwise classified (HNOC)*

No information available.

### *(d) Unknown Toxicity*

10% of the mixture consists of ingredient(s) of unknown toxicity.

### *(e) Other information*

No information available.

### *(f) Interactions with Other Chemicals*

No information available.



### 3. Composition/information on ingredients

*(a) Mixtures information*

Materials:	Approximate percent of total weight %	CAS No.
Manganese Dioxide(Mno2)	41.0	1313-13-9
Zinc Powder(Zn)	17.5	7440-66-6
Water	11.5	7732-18-5
Graphite	2.9	7782-42-5
Potassium Hydroxide(KOH)	5.47	1310-58-3
Iron	17.0	7439-89-6
Brass	2.3	12597-71-6
Zinc Oxide	2.33	1314-13-2

### 4. First-aid measures

*(a) Description of first aid measures*

<b>General Advice</b>	First aid is upon rupture of sealed battery.
Eye contact:	Show this safety data sheet to the doctor in attendance. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
Skin contact:	Remove contaminated clothes and rinse the skin with plenty of water. Get medical advice / attention if you feel unwell.
Inhalation:	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personnel should) give oxygen. Get medical advice / attention if you feel unwell.
Ingestion:	Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical aid.
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

*(b) Most important symptoms/effects, acute and delayed*

Contact with internal components may cause allergic skin sensitization (rash) and irritate eyes, skin, nose, throat, respiratory system. Cobalt and Cobalt compounds are considered to be possible human carcinogen(s).

*(c) Immediate medical attention and special treatment*

No information available.

### 5. Fire-fighting measures

*(a) Extinguishing media*

Suitable extinguishing media:	Use foam, dry powder or dry sand, CO <sub>2</sub> as appropriate.
Unsuitable extinguishing media:	No information available.

## ***(b) Special hazards arising from the chemical***

Under fire conditions, batteries may burst and release hazardous decomposition products when exposed to a fire situation. This could result in the release of flammable or corrosive materials. Hazardous combustion products: CO, CO<sub>2</sub>, Metal oxides, Irritating fumes

## ***(c) Special protective equipment and precautions for fire-fighters***

Firefighters must wear fire resistant protective equipment and appropriate breathing apparatus. The staff must equip with filtermask (full mask) or isolated breathing apparatus. The staff must wear the clothes which can defense the fire and the toxic gas. Put out the fire in the upwind direction. Remove the container to the open space as soon as possible. Spray water on the containers in the fireplace to keep them cool until finish extinguishment.

---

## **6. Accidental release measures**

### ***(a) Personal precautions, protective equipment and emergency procedures***

If the battery material is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area, dispose the case after the batteries cool and vapors dissipate. Provide maximum ventilation. Avoid skin and eye contact or inhalation of vapors.

### ***(b) Environmental Precautions***

Prevent material from contaminating soil and from entering sewers or waterways.

### ***(c) Methods and materials for containment and cleaning up***

If the battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

---

## **7. Handling and storage**

### ***(a) Precautions for safe handling***

Always follow the warning information on the batteries and in the manuals of devices. Only use the recommended battery types. Keep batteries away from children. For devices to be used by children, the battery casing should be protected against unauthorized access. Unpacked batteries shall not lie about in bulk. In case of battery change always replace all batteries by new ones of identical type and brand. Do not swallow batteries. Do not throw batteries into water. Do not throw batteries into fire. Avoid deep discharge. Do not short-circuit batteries Use recommended charging time and current.

### ***(b) Conditions for safe storage, including any incompatibilities***

If the battery is subject to storage for such a long term as more than 3 months, it is recommended to recharge the battery periodically. And recommended at -5°C~45°C for 1 month storage, at -5°C~35°C for 3 months storage. Do not storage the battery haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by other metal objects. Keep out of reach of children.

---

## **8. Exposure controls/personal protection**

### ***(a) Control parameters***

ACGIH TLV: American Conference of Governmental Industrial Hygienists -Threshold Limit Value

OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

**Other Exposure Guidelines:** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962(11th Cir., 1992) See section 15 for national exposure control parameters

**(b) Appropriate engineering controls**

**Engineering Measures:** 1. Showers  
2. Eyewash stations  
3. Ventilation systems

**(c) Individual protection measures, such as personal protective equipment**

**Eye/Face Protection:** Not necessary under normal conditions, wear safety glasses if handling an open or leaking battery.

**Skin and body Protection:** Not necessary under normal conditions, wear protective gloves and protective clothing such as long-sleeved clothing, impervious gloves, chemical resistant apron, and antistatic boots if handling an open or leaking battery.

**Respiratory Protection:** Not necessary under normal conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink, or smoke in work area. Maintain good housekeeping.

## 9. Physical and chemical properties

(a) Appearance	Silver Solid
(b) Odor	Odorless
(c) Odor threshold	Not available.
(d) pH	Not available.
(e) Melting point/freezing point	Not available.
(f) Initial boiling point and boiling range	Not available.
(g) Flash point	Not applicable.
(h) Evaporation rate	Not applicable.
(i) Flammability	Non-flammable.
(j) Upper/lower flammability or explosive limits	Not available.
(k) Vapor pressure	Not applicable.
(l) Vapor density	Not available.
(m) Relative density	Not available.
(n) Solubility(ies)	Insoluble in water.
(o) Partition coefficient: n-octanol/water	Not available.
(p) Auto-ignition temperature	130°C
(q) Decomposition temperature	Not available.
(r) Viscosity	Not available.

---

## 10. Stability and reactivity

---

**Stability:** This product is stable.

**Incompatibility/Conditions to Avoid:** Contents are incompatible with strong oxidizing agents. Do not heat, crush, disassemble, short circuit or recharge.

**Hazardous Decomposition Products:** Thermal decomposition may produce hazardous fumes of zinc and manganese; caustic vapors of potassium hydroxide and other toxic by-products.

**Hazardous Polymerization:** Will not occur.

---

## 11. Toxicological information

---

### Potential Health Effects:

The chemicals and metals in this product are contained in a sealed can. Exposure to the contents will not occur unless the battery leaks, is exposed to high temperatures or is mechanically, physically, or electrically abused. Damaged battery will release concentrated potassium hydroxide, which is caustic. Anticipated potential leakage of potassium hydroxide is 2 to 20 ml, depending on battery size.

**Eye Contact:** Contact with battery contents may cause severe irritation and burns. Eye damage is possible.

**Skin Contact:** Contact with battery contents may cause severe irritation and burns.

**Inhalation:** Inhalation of vapors or fumes released due to heat or a large number of leaking batteries may cause respiratory and eye irritation.

**Ingestion:** Swallowing is not anticipated due to battery size. Choking may occur if smaller AAA batteries are swallowed. Ingestion of battery contents (from a leaking battery) may cause mouth, throat and intestinal burns and damage.

### Acute Toxicity Data:

Manganese Dioxide: LD50 oral rat >3478 mg/kg

Potassium Hydroxide: LD50 oral rat 273 mg/kg

**Inhalation:** Inhalation of a large number of vapors or fumes released due to heat may cause respiratory.

**Ingestion:** Ingestion of battery contents may cause mouth, throat and intestinal burns and damage.

**Skin contact:** Contact with battery electrolyte may cause burns and skin irritation.

**Eye contact:** Contact with battery electrolyte may cause burns. Eye damage is possible.

Under normal conditions (during charge and discharge) release of ingredients does not occur. If accidental release occurs see information in section 4. Swallowing of a battery can be harmful. Call the local Poison Control Centre for advice and follow-up.

**Chronic Effects:** The chemicals in this product are contained in a sealed can and exposure does not occur during normal handling and use. No chronic effects would be expected from handling a leaking battery.

**Target Organs:** Skin, eyes and respiratory system.

**Carcinogenicity:** None of the components of this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA.

---

## 12. Ecological information

---

### (a) Ecotoxicity

Water hazard class 1(Self-assessment): slightly hazardous for water.

**(b) Persistence and Degradability**

No information available.

**(c) Bioaccumulative potential**

No information available.

**(d) Mobility in soil**

No information available.

**(e) Other adverse effects**

No information available.

---

## 13. Disposal considerations

---

**Safe handling and methods of disposal**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Local regulations may be more stringent than regional or national requirements.

Product disposal recommendation: Observe local, state and federal laws and regulations.

Packaging disposal recommendation: Be aware discarded batteries may cause fire, tape the battery terminals to insulate them. Don't disassembly the battery. Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used. Observe local, state and federal laws and regulations.

The potential effects on the environment and human health of the substances used in batteries and accumulators; the desirability of not disposing of waste batteries and accumulators as unsorted municipal waste and of participating in their separate collection so as to facilitate treatment and recycling.

---

## 14. Transport information

---

Alkaline batteries (sometimes referred to as "Dry Cell" or "Household" batteries) are not listed or regulated as dangerous goods under the IATA Dangerous Goods Regulations, ICAO Technical Instructions, IMDG Code, UN Model Regulations or U.S. hazardous regulations (49CFR).

However, special regulatory provisions apply that require batteries to be packaged in a manner that prevents the generation of a dangerous quantity of heat and short circuits. Product shipped in its original unopened Nanfu (or Excell) packaging is compliant with the following packaging special provisions.

**Ground Transport (ADR/RID/US DOT):** 49 CFR172.102 Special Provision 130.

**Air Transport (IATA):** Special Provision A123 (IATA DGR Edition 2018 –59th Edition).

The words 'NOT RESTRICTED' and the 'Special Provision A123' must be included on the description of the substance on the Air Waybill, when air waybill is issued.

**Marine/Water Transport (IMDG/ICAO):** NONE

\*Special provisions apply and shippers should consult the most current versions of the transportation regulations.

## 15. Regulatory information

### United States

**EPA TSCA Status:** All intentionally-added components of this product are listed on the US TSCA Inventory.

**OSHA Status:** While the finished product(s) is considered an article and not covered by the OSHA Hazard Communication Standard, 29 CFR 1910.1200, this MSDS/PSDS contains valuable information critical to the safe handling and proper use of the product".

**CPSIA 2008:** Alkaline batteries are exempt.

**EPA Mercury Containing and Rechargeable Battery Management Act of 1996:** Compliant.

**EPA TSCA:** All intentionally-added components of this product are listed on the US TSCA Inventory.

**EPA SARA 313/302/304/311/312 chemicals:** Manganese compounds 36-44%; Zinc 13-18%.

**California:** This product has been evaluated and does not require warning labeling under California Proposition 65.

### **State Right-to-Know and CERCLA:**

The following ingredients present in the finished product are listed on state right-to-know lists or state worker exposure lists

Ingredient	CAS #	Level %	CERCLA RQ	State				
				IL	MA	NJ	PA	RI
Manganese Dioxide	1313-13-9	36-44	None	Y	Y	N	Y	Y
Zinc	7440-66-6	13-18	1000 lb	Y	Y	Y	Y	N
Potassium Hydroxide	1310-58-3	4-9	1000 lb	Y	Y	Y	Y	Y
Graphite	7782-42-5	1-4	None	Y	Y	N	Y	Y
	7440-44-0							

### Canada

All intentionally-added components of this product are listed on the Canadian DSL. This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this MSDS contains all information required by the Controlled Products Regulations.

## 16. Other information, including date of preparation or last revision

### *(a) Preparation and revision information*

Date of previous revision: Not applicable.

Date of this revision: 01/01/2018

Revision summary: The first New SDS

**(b) Abbreviations and acronyms**

TSCA:	Toxic Substances Control Act, The American chemical inventory.
DSL	Domestic Substances List
EINECS:	European Inventory of Existing Commercial chemical Substances
ENCS	Japanese Existing and New Chemical Substances
ECL:	Existing Chemicals List, the Korean chemical inventory.
IECSC:	Inventory of existing chemical substances in China.

**(c) Disclaimer**

Because all of our batteries are defined as "articles", they are exempted from the requirements of the Hazard Communication Standard. The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage.

----- End of the SDS -----