# SAFETY DATA SHEET



Lysol Brand Power and Free Multi-Purpose Cleaner with Hydrogen Peroxide

# 1. Product and company identification

Product name	Lysol Power and Free Multi-Purpose Cleaner with Hydrogen Peroxide
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 : Surface Care

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 #	:	D8087919 v2.0
Formulation #:	:	2018-024 (8081862) Oxygen 2018-095 (8081863) Citrus
UPC Code / Sizes	:	28 Oz HDPE Bottle and 40 Oz HDPE Bottle

Relevant identified uses of the substance or mixture and uses advised against Not applicable.

#### 2. Hazards identification **Classification of the** : CORROSIVE TO METALS - Category 1 substance or mixture **GHS label elements** Hazard pictograms Signal word : Warning **Hazard statements** : May be corrosive to metals. **Precautionary statements** : D8087919 v2.0 Date of issue : 17/03/2015. 1/12 Code # : D8087919 SDS #

# 2. Hazards identification

General	<ul> <li>Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.</li> </ul>
Prevention	: Keep only in original container.
Response	: Absorb spillage to prevent material damage.
Storage	: Store in corrosive resistant container with a resistant inner liner.
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
hydrogen peroxide Citric acid	1 - 2.5 0.1 - 1	7722-84-1 77-92-9

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

<b>Description of necess</b>	ary first aid measures
Eye contact	<ul> <li>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.</li> </ul>
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.
Skin contact	<ul> <li>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.</li> </ul>
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.
	oms/effects, acute and delayed
Potential acute health	
Eye contact	: No known significant effects or critical hazards.

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4. First aid measures		
: No known significant effects or critical hazards.		
: No known significant effects or critical hazards.		
<u>ptoms</u>		
: No specific data.		
dical attention and special treatment needed, if necessary		
<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</li> </ul>		
: No specific treatment.		
: 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)

1.4.

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	: In a fire or if heated, a pressure increase will occur and the container may burst.	
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide	
Special protective actions for fire-fighters	<ul> <li>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.</li> </ul>	
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. Do not touch or walk through spilled material. 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 specialised 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".

# 6. Accidental release measures

**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).

Methods and materials for containment and cleaning up Small spill : Stop leak if without risk. Move containers from spill area. 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. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor. Large spill : Stop leak if without risk. Move containers from spill area. Absorb spillage to prevent material damage. 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.

# 7. Handling and storage

#### Precautions for safe handling

**Conditions for safe storage, including any incompatibilities incompatibilities** 

# 8. Exposure controls/personal protection

#### **Control**

**Occupational exposure limits** 

Ingredient name	Exposure limits
hydrogen peroxide	ACGIH TLV (United States, 6/2013). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m <sup>3</sup> 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m <sup>3</sup> 8 hours. NIOSH REL (United States, 10/2013).
	TWA: 1 ppm 10 hours. TWA: 1.4 mg/m <sup>3</sup> 10 hours. <b>OSHA PEL (United States, 2/2013).</b> TWA: 1 ppm 8 hours. TWA: 1.4 mg/m <sup>3</sup> 8 hours.

# 8. Exposure controls/personal protection

Appropriate engineering controls	:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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 measu	<u>ires</u>	
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.
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	:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

# 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Clear.
Odor	: Characteristic.
Odor threshold	: Not available.
рН	: 2.1 to 3.5
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Closed cup: >93.3°C (>199.9°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.

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# 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1 to 1.005
Solubility	: Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Not available.

# 10. Stability and reactivity

Chemical stability : The product is stable.	tous reactions will not occur
	tous reactions will not occur
Possibility of hazardous : Under normal conditions of storage and use, hazard reactions	
Conditions to avoid : No specific data.	
Incompatible materials : Reactive or incompatible with the following materials metals Do not mix with household chemicals.	s:
Hazardous decomposition products: Under normal conditions of storage and use, hazard not be produced.	dous decomposition products should

# 11. Toxicological information

### Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
hydrogen peroxide	LD50 Oral	Rat - Male, Female	805 mg/kg (70% H2O2 w/w)	-
Citric acid	LD50 Oral	Rat	3 g/kg	-
*Lysol Power and Free Multi- Purpose Cleaner with	LC50 Inhalation Vapor	Rat	>2.06 mg/l	4 hours
Hydrogen Peroxide	LD50 Dermal	Rat	>5000 mg/kg	-
,	LD50 Oral	Rat	>5000 mg/kg	-

**Conclusion/Summary** : No known significant effects or critical hazards. Information is based on toxicity test result of a similar product.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
hydrogen peroxide	Eyes - Severe irritant	Rabbit	-	1 milligrams	-
Citric acid	Eyes - Severe irritant	Rabbit	-	24 hours 750	-
				Micrograms	
	Skin - Mild irritant	Rabbit	-	24 hours 500	-
				milligrams	
	Skin - Moderate irritant	Rabbit	-	0.5 Mililiters	-
*Lysol Power and Free Multi-	Eyes - Mild irritant	Rabbit	-	-	-
Purpose Cleaner with					
Hydrogen Peroxide	Skin - Mild irritant	Rabbit	-	-	-
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# 11. Toxicological information

#### **Conclusion/Summary**

: Slightly irritating to the skin.

\*Information is based on toxicity test result of a similar product.

Eyes

Skin

: Mildly irritating to the eyes. \*Information is based on toxicity test result of a similar product.

#### **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
*Lysol Power and Free Multi-	skin	Guinea pig	Not sensitizing
Purpose Cleaner Hydrogen			

#### **Conclusion/Summary**

Skin

: Non-sensitizer. \* Information is based on toxicity test result of a similar product.

#### **Mutagenicity**

Not available.

#### **Carcinogenicity**

Not available.

#### **Classification**

Product/ingredient name	OSHA	IARC	NTP
hydrogen peroxide	-	3	-

#### **Reproductive toxicity**

Not available.

#### **Teratogenicity**

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

#### Information on the likely Not available

routes of exposure

	INOL	ava	nabie.

#### 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 phy	sical, chemical and toxicological characteristics
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
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# 11. Toxicological information

Ingestion

: No specific data.

Delayed and immediate effect	ts and also chronic effects from short and long term exposure
Short term exposure	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health eff	ects
Not available.	
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.
<b>Developmental effects</b>	: No known significant effects or critical hazards.

**Numerical measures of toxicity** 

Acute toxicity estimates

Not available.

# 12. Ecological information

#### **Toxicity**

Product/ingredient name	Result	Species	Exposure
hydrogen peroxide	Acute EC50 1.2 mg/l Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2320 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 30 mg/l Fresh water	Fish - Siluriformes - Fingerling	96 hours
	Chronic NOEC 989.7 ppm Fresh water	Fish - Oncorhynchus tshawytscha - Egg	43 days
Citric acid	Acute LC50 160000 µg/l Marine water	Crustaceans - Carcinus maenas - Adult	48 hours

#### Persistence and degradability

Not available.

**Bioaccumulative potential** 

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# 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
hydrogen peroxide	-1.36	-	low
Citric acid	-1.8		low

#### Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

# 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1760	Corrosive liquids, n.o. s. (citric acid, hydrogen peroxide)	8	111	$\diamond$	Limited quantity
TDG Classification	UN1760	CORROSIVE LIQUID, N.O.S. (citric acid, hydrogen peroxide)	8	111	$\diamond$	Limited quantity
Mexico Classification	Not applicable	Not applicable.	Not applicable	N/A		Not applicable.
IMDG Class	UN1760	CORROSIVE LIQUID, N.O.S. (citric acid, hydrogen peroxide)	8		$\bigcirc$	Limited quantity

# D8087919 v2.0 14. Transport information IATA-DGR Class UN1760 Corrosive liquid, n.o.s. (citric acid, hydrogen peroxide) 8 III See DG List. PG\* : Packing group PG\* information III III III III 15. Regulatory information Image: Constant of the second second

U.S. Federal regulations	TSCA 8(a) PAIR: 2-benzylideneheptanal; 2-methylundecanal; anisaldehyde; α- hexylcinnamaldehyde; 1-(2-butoxy-1-methylethoxy)propan-2-ol TSCA 8(a) CDR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): Not determined.	
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not 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**

			SARA 302 TPQ SARA 304 RQ		RQ.	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
hydrogen peroxide	1 - 2.5	Yes.	1000	106.1	1000	106.1

#### SARA 304 RQ

: 95238.1 lbs / 43238.1 kg [11393.8 gal / 43130.3 L]

#### SARA 311/312

Classification : Reactive

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
hydrogen peroxide Citric acid		No. No.		No. No.	Yes. Yes.	No. No.

#### State regulations

Massachusetts	: The following comp	oonents are listed: HYDROGEN PEROXI	DE
	<u> </u>		

New York

: The following components are listed: Hydrogen peroxide

New Jersey Pennsylvania : The following components are listed: HYDROGEN PEROXIDE

: The following components are listed: HYDROGEN PEROXIDE (CONC > 52 PERCENT)

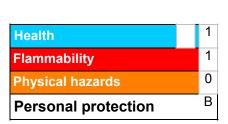
## 15. Regulatory information

#### Label elements

Signal word:	: CAUTION
Hazard statements	: Keep out of reach of children.
Precautionary measures	: Avoid contact with eyes, skin and clothing.
	Avoid breathing dust/fume/gas/mist/vapors/spray.
Additional information	: Short term Skin Bleaching agent. IF ON SKIN: Rinse skin with water.

# 16. Other information

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



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.

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

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



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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 = International Air Transport Association IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
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# **16. Other information**

Date of previous issue	: 05/04/2013.
Version	: 2
Prepared by	: Reckitt Benckiser LLC. Product Safety Department 1 Philips Parkway Montvale, New Jersey 07646-1810 USA. FAX: 201-476-7770

#### **Revision comments**

: Update as per US GHS

✓ 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.



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