

SAFETY DATA SHEET

Lysol Brand Kills 99.9% of Viruses & Bacteria** Power & Free Multi-Purpose
Cleaner with Hydrogen Peroxide Citrus Sparkle Zest Scent



HEALTH • HYGIENE • HOME

1. Product and company identification

- Product name** : Lysol Brand Kills 99.9% of Viruses & Bacteria** Power & Free Multi-Purpose Cleaner with Hydrogen Peroxide Citrus Sparkle Zest Scent
- 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.rbna.info>

Product use : Multipurpose Cleaner

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 #** : D8007202 v4.0
- Formulation #:** : 1621-187B (8005137) Citrus Sparkle Zest Scent
- EPA ID No.** : 777-126
- UPC Code / Sizes** : 22 Oz HDPE Bottle and 32 Oz HDPE Bottle.

2. Hazards identification

Classification of the substance or mixture : CORROSIVE TO METALS - Category 1

GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : May be corrosive to metals.

Code # : FF8005137 **SDS #** : D8007202 v4.0 **Date of issue** : 24/04/2015. **1/13**
(D8007202)_Edelweiss_US
GHS

D8007202 v4.0

2. Hazards identification

Precautionary statements

- General** : Keep out of reach of children. If medical advice is needed, have product container or label at hand.
- 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	1 - 2.5	7722-84-1
Citric acid	0.1 - 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

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.
- 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.
- 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

Code # : FF8005137 **SDS #** : D8007202 v4.0 **Date of issue** : 24/04/2015. **2/13**
 (D8007202)_Edelweiss_US
 GHS

D8007202 v4.0

4. First aid measures

Potential acute health effects

- Eye contact** : Mildly irritating to the eyes.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Slightly irritating to the skin.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
redness
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
Irritation
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- 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 : 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 : 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.

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.

D8007202 v4.0

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".
- 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

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

D8007202 v4.0

8. Exposure controls/personal protection

Control

Occupational exposure limits

Ingredient name	Exposure limits
hydrogen peroxide	<p>ACGIH TLV (United States, 6/2013). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m³ 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2013). TWA: 1 ppm 10 hours. TWA: 1.4 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 1 ppm 8 hours. TWA: 1.4 mg/m³ 8 hours.</p>

- 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 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.

- 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.

D8007202 v4.0

9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Clear.
Odor	: Characteristic.
Odor threshold	: Not available.
pH	: 2.1 to 3.5 [Conc. (% w/w): 100%]
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.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1 to 1.005 g/cm ³ [20 to 25°C]
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

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. Polymerization. : There are no data available on the mixture itself.
Conditions to avoid	: Do not mix with: acids or oxidizing agents
Incompatible materials	: Reactive or incompatible with the following materials: metals Do not use with other products.
Hazardous decomposition products	: Hazardous decomposition products: carbon oxides, Various Organic chemicals.

11. Toxicological information

Information on toxicological effects

Acute toxicity

D8007202 v4.0

11. Toxicological information

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 Brand Kills 99.9% of Viruses & Bacteria** Power & Free Multi-Purpose Cleaner with Hydrogen Peroxide Citrus Sparkle Zest Scent	LC50 Inhalation Vapor	Rat	>2.06 mg/l	4 hours
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : Not classified Harmful *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 Milliliters	-
*Lysol Brand Kills 99.9% of Viruses & Bacteria** Power & Free Multi-Purpose Cleaner with Hydrogen Peroxide Citrus Sparkle Zest Scent	Eyes - Cornea opacity	Rabbit	<1	-	-
	Skin - Slight irritant	Rabbit	<1	-	-

Conclusion/Summary

Skin : Slightly irritating to the skin. *Information is based on toxicity test result of a similar product.

Eyes : 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 Brand Kills 99.9% of Viruses & Bacteria** Power & Free Multi-Purpose Cleaner with Hydrogen Peroxide Citrus Sparkle Zest Scent	skin	Guinea pig	Not sensitizing

Conclusion/Summary

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

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

D8007202 v4.0

11. Toxicological information

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 routes of exposure : Not available.

Potential acute health effects

Eye contact : Mildly irritating to the eyes.
Inhalation : No known significant effects or critical hazards.
Skin contact : Slightly irritating to the skin.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 redness
Inhalation : No specific data.
Skin contact : Adverse symptoms may include the following:
 Irritation
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.

D8007202 v4.0

11. Toxicological information

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

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 Chronic NOEC 989.7 ppm Fresh water	Fish - Siluriformes - Fingerling Fish - Oncorhynchus tshawytscha - Egg	96 hours 43 days
Citric acid	Acute LC50 160000 µg/l Marine water	Crustaceans - Carcinus maenas - Adult	48 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
hydrogen peroxide	-1.36	-	low
Citric acid	-1.8	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.





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

D8007202 v4.0

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	III		<u>Limited quantity</u>
TDG Classification	UN1760	CORROSIVE LIQUID, N.O.S. (citric acid, hydrogen peroxide)	8	III		<u>Limited quantity</u>
Mexico Classification	Not applicable	Not applicable.	Not applicable	N/A		<u>Not applicable.</u>
IMDG Class	UN1760	CORROSIVE LIQUID, N.O.S. (citric acid, hydrogen peroxide)	8	III		<u>Limited quantity</u>
IATA-DGR Class	UN1760	Corrosive liquid, n.o.s. (citric acid, hydrogen peroxide)	8	III		<u>See DG List.</u>

PG* : Packing group

D8007202 v4.0

15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: 1-(2-butoxy-1-methylethoxy)propan-2-ol; α -hexylcinnamaldehyde; 2-(4-tert-butylbenzyl)propionaldehyde; 3-p-cumenyl-2-methylpropionaldehyde; 1-methyl-4-(4-methylpentyl)cyclohex-3-ene-1-carbaldehyde; 4-(4-hydroxy-4-methylpentyl)cyclohex-3-enecarbaldehyde

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

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

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(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	1 - 2.5	No.	No.	No.	Yes.	No.
Citric acid	0.1 - 1	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : The following components are listed: HYDROGEN PEROXIDE

New York : The following components are listed: Hydrogen peroxide

New Jersey : The following components are listed: HYDROGEN PEROXIDE

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

Label elements

Hazard statements : Keep out of reach of children.

Precautionary measures : Avoid contact with eyes, skin and clothing.

Code # : FF8005137

(D8007202)_Edelweiss_US
GHS

SDS # : D8007202 v4.0

Date of issue : 24/04/2015.

11/13

D8007202 v4.0

15. Regulatory information

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.) :

Health	1
Flammability	1
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.

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 = Intermediate Bulk Container
- 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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Version : 5

D8007202 v4.0

16. Other information

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Product Safety Department
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Montvale, New Jersey 07646-1810 USA.
FAX: 201-476-7770

Revision comments : Updated EPA registraion number

✔ 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.