SAFETY DATA SHEET



Professional Easy Off Dish Detergent

1. Product and company identification

Product name

: Professional Easy Off Dish Detergent

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 : Dishwashing detergents.

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 # : D8159477 v2.0

Formulation #: : (e0062-010) 8101330 v1.0

UPC Code / Sizes : One gallon (128 Fluid ounces/3.79L) HDPE bottle with cap

2. Hazards identification

Classification of the substance or mixture

: ACUTE TOXICITY (oral) - Category 4

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms



Signal word

: Warning

Hazard statements

Harmful if swallowed. Causes serious eye irritation.

Precautionary statements

General

: Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

2. Hazards identification

Prevention

: Wear eye or face protection. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response

: IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Not applicable.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: None known.

Hazards not otherwise

classified

: None known.

3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Alcohols, C10-16, ethoxylated, sulfates, sodium salts sodium dodecylbenzenesulfonate 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., hydroxides, inner salts	5 - 10 5 - 10 1 - 2.5	68585-34-2 25155-30-0 61789-40-0

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.

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.

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 necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention

4. First aid measures

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 : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion Harmful if swallowed. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

> pain or irritation watering redness

Inhalation : No specific data. 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.

: In a fire or if heated, a pressure increase will occur and the container may burst.

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

: Decomposition products may include the following materials:

Hazardous thermal decomposition products

carbon dioxide carbon monoxide nitrogen oxides sulfur oxides metal oxide/oxides

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.

Code # SDS# : D8159477 v2.0 **Date of issue** : 03/12/2014. 3/11 : FF8101330 1

5. Fire-fighting measures

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 nonemergency 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. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Move containers from spill area. 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.

including any incompatibilities

Conditions for safe storage, : 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. 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.

Code # : FF8101330 1 SDS# : D8159477 v2.0 **Date of issue** : 03/12/2014. 4/11

8. Exposure controls/personal protection

Control

Occupational exposure limits

Not applicable.

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: chemical splash goggles.

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

Appearance

Physical state : Liquid. [Clear viscous liquid.]

Color : Blue.

Odor : Characteristic.
Odor threshold : Not available.

pH : 6 to 9 [Conc. (% w/w): 100%]

Melting point: Not available.Boiling point: Not available.

Flash point : Closed cup: >100°C (>212°F)

9. Physical and chemical properties

Evaporation rate : Not available.
Flammability (solid, gas) : Not available.
Lower and upper explosive : Not available.

(flammable) limits

Vapor pressure: Not available.Vapor density: Not available.

Relative density : 1.03

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 : Dynamic (room temperature): 600 to 1200 mPa·s (600 to 1200 cP)

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 : No specific data.

Incompatible materials : No specific data.

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
sodium dodecylbenzenesulfonate	LD50 Oral	Rat	438 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
sodium dodecylbenzenesulfonate	Eyes - Severe irritant	Rabbit	-	24 hours 250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
1-Propanaminium, 3-amino- N-(carboxymethyl)-N,N- dimethyl-, N-coco acyl derivs., hydroxides, inner salts	Eyes - Severe irritant	Rabbit	-	24 hours 100 microliters	-

Sensitization

Not available.

Mutagenicity

Not available.

Code # : FF8101330_1 SDS # : D8159477 v2.0 Date of issue : 03/12/2014. 6/11

11. Toxicological information

Carcinogenicity

Not available.

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 : Causes serious eye irritation.

Inhalation: Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Skin contact: No known significant effects or critical hazards.

Ingestion: Harmful if swallowed. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation: No specific data.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 : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

11. Toxicological information

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
sodium dodecylbenzenesulfonate	Acute EC50 29000 μg/l Fresh water	Algae - Chlorella pyrenoidosa - Exponential growth phase	96 hours
	Acute EC50 7.81 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 0.15 ppm Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute IC50 112.4 mg/l	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 1.18 ppm Fresh water	Fish - Lepomis macrochirus	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
sodium	1.96	-	low
dodecylbenzenesulfonate 1-Propanaminium, 3-amino-N- (carboxymethyl)-N,N-	1.79	71	low
dimethyl-, N-coco acyl derivs., hydroxides, inner salts			

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

Not a DOT controlled material (United States). Not a TDG-controlled material. This preparation is not classified as dangerous according to international transport regulations (ADR/RID, IMDG or ICAO/IATA).

15. Regulatory information

U.S. Federal regulations

: TSCA 8(a) PAIR: 2-benzylideneheptanal; 7-hydroxycitronellal; α-hexylcinnamaldehyde

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

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 311: sodium dodecylbenzenesulfonate

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

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Code # : FF8101330_1 SDS # : D8159477 v2.0 Date of issue : 03/12/2014. 9/11

15. Regulatory information

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
sodium dodecylbenzenesulfonate 1-Propanaminium, 3-amino-N- (carboxymethyl)-N,N-dimethyl-, N- coco acyl derivs., hydroxides, inner salts	5 - 10 1 - 2.5	Yes. No.	No. No.	No. No.	Yes. Yes.	No. No.

State regulations

Massachusetts : The following components are listed: SODIUM DODECYLBENZENE SULFONATE

New York : The following components are listed: Sodium dodecylbenzene sulfonate;

Dodecylbenzene sulfonate

New Jersey : The following components are listed: SODIUM DODECYLBENZENE SULFONATE;

BENZENESULFONIC ACID, DODECYL-, SODIUM SALT

Pennsylvania : The following components are listed: BENZENESULFONIC ACID, DODECYL-,

SODIUM SALT

Label elements

Signal word : CAUTION

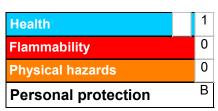
Hazard statements : CAUSES EYE IRRITATION. HARMFUL IF SWALLOWED.

Precautionary measures: Keep out of the reach of children. Do not swallow. Avoid contact with eyes. Wash

hands after handling.

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.)



Code # : FF8101330_1 SDS # : D8159477 v2.0 Date of issue : 03/12/2014. 10/11

16. Other information

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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

Date of issue : 03/12/2014.

Date of previous issue : 09/06/2014.

Version : 2

Prepared by : Reckitt Benckiser LLC.

Product Safety Department

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FAX: 201-476-7770

Revision comments: Update as per US GHS.

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.

Code # : FF8101330_1 SDS # : D8159477 v2.0 Date of issue : 03/12/2014. 11/11