SAFETY DATA SHEET



Easy-Off Fume Free Oven Cleaner Trigger

1. Product and company identification

Product name	Easy-Off Fume Free Oven Cleaner Trigger
Distributed by	: Reckitt Benckiser 30 Arrowhead Industrial Blvd. St. Peters, Missouri 63376 USA T +1 636 397 5211
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	: Oven 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 #	: D0234474 v2.0
Formulation #:	: 1557-070 (0233299 v1.0)
UPC Code / Sizes	: 62338 82727 (16 oz. HDPE Blue Bottle with TS3V40 Blue Foaming Trigger)

Classification of the substance or mixture	: CORROSIVE TO METALS - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: May be corrosive to metals. Causes serious eye irritation.
Precautionary statement	<u>s</u>
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. Keep only in original container. Wash hands thoroughly after handling.
Response	: Absorb spillage to prevent material damage. 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	: 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
2-(2-butoxyethoxy)ethanol		5 - 10	112-34-5
potassium carbonate		5 - 10	584-08-7
2-aminoethanol		0.1 - 1	141-43-5
d-Limonene		0.1 - 1	5989-27-5

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 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.	

4. First aid measures

Most important symptoms/effects, acute and delayed

E	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	: Irritating to mouth, throat and stomach.
Over-exposure signs/symp	utoms
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 me	dical 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	: 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 nitrogen 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.
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.

3/13

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	L	
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. Keep away from acids. 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. Separate from acids. 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.

4/13

8. Exposure controls/personal protection

Control

Occupational exposure limits

Ingredient name			Exposure limits
2-(2-butoxyethoxy)ethanol			ACGIH TLV (United States, 4/2014).
			TWA: 10 ppm 8 hours. Form: Inhalable
			fraction and vapor
2-aminoethanol			ACGIH TLV (United States, 4/2014).
			TWA: 3 ppm 8 hours.
			TWA: 7.5 mg/m ³ 8 hours.
			STEL: 6 ppm 15 minutes.
			STEL: 15 mg/m ³ 15 minutes.
			OSHA PEL 1989 (United States, 3/1989).
			TWA: 3 ppm 8 hours.
			TWA: 8 mg/m ³ 8 hours.
			STEL: 6 ppm 15 minutes.
			STEL: 15 mg/m ³ 15 minutes.
			NIOSH REL (United States, 10/2013).
			TWA: 3 ppm 10 hours.
			TWA: 8 mg/m ³ 10 hours.
			STEL: 6 ppm 15 minutes. STEL: 15 mg/m³ 15 minutes.
			OSHA PEL (United States, 2/2013).
			TWA: 3 ppm 8 hours.
			TWA: 6 mg/m ³ 8 hours.
Appropriate engineering controls		Good general ventilation should be suffic contaminants.	ient to control worker exposure to airborne
Environmental exposure	: E	Emissions from ventilation or work proces	ss equipment should be checked to ensure they
controls	C fi	comply with the requirements of environm	nental protection legislation. In some cases, difications to the process equipment will be
Individual protection measure	es		
Hygiene measures	e te	eating, smoking and using the lavatory a echniques should be used to remove po	hly after handling chemical products, before nd at the end of the working period. Appropriate tentially contaminated clothing. Wash nsure that eyewash stations and safety showers
Eye/face protection	a Q	assessment indicates this is necessary t gases or dusts. If contact is possible, th	ved standard should be used when a risk o avoid exposure to liquid splashes, mists, e following protection should be worn, unless e of protection: chemical splash goggles.
Skin protection			
Hand protection	v r c r g	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	p		dy should be selected based on the task being ould be approved by a specialist before handling
Code # : FF0233299 (D023		•	ate of issue : 27/05/2015. 5/13

8. Exposure controls/personal protection

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.
Color	1	Clear.
Odor	:	Lemon-like.
Odor threshold	1	Not available.
рН	1	12.5 [Conc. (% w/w): 100%]
Melting point	:	Not available.
Boiling point	1	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	1	Not available.
Vapor pressure	1	Not available.
Vapor density	:	Not available.
Relative density	:	0.994 to 1.07
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	1	Not available.
Viscosity	1	Dynamic (room temperature): 180 to 450 mPa·s (180 to 450 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	:	Keep away from extreme heat. Keep from freezing. Protect from moisture.
Incompatible materials	:	Reactive or incompatible with the following materials: acids metals
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
2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-
potassium carbonate	LD50 Oral	Rat	1870 mg/kg	-
2-aminoethanol	LD50 Oral	Rat	1720 mg/kg	-
d-Limonene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	4400 mg/kg	-
*EOF FF Oven Cleaner, Trigger	LC50 Inhalation Vapor	Rat	>200 mg/l	4 hours
	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
2-(2-butoxyethoxy)ethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	20 milligrams	-
2-aminoethanol	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Skin - Moderate irritant	Rabbit	-	505 milligrams	-
d-Limonene	Skin - Mild irritant	Rabbit	-	24 hours 10 Percent	-
*EOF FF Oven Cleaner, Trigge	rSkin - Edema	Rabbit	0	-	-
	Eyes - Cornea opacity	Rabbit	>1	-	14 days

Conclusion/Summary

Skin Eyes Non-irritant to skin. *Information is based on toxicity test result of a similar product.
Moderately irritating to eyes. * Information is based on toxicity test result of a similar

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
d-Limonene	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

product.

11. Toxicological information

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name		Result
d-Limon	nene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	: Not available.

Potential acute health effects

Short term exposure

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	: 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

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 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.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

11. Toxicological information

Acute toxicity estimates

Route	ATE value
Dermal	36030.8 mg/kg

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-(2-butoxyethoxy)ethanol	Acute LC50 1300000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
potassium carbonate	Acute LC50 630000 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 650000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
2-aminoethanol	Acute EC50 8.42 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute LC50 >100000 μg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 170000 µg/l Fresh water	Fish - Carassius auratus	96 hours
d-Limonene	Acute EC50 421 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 688 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-(2-butoxyethoxy)ethanol 2-aminoethanol	1 -1.31	-	low low
d-Limonene	4.38	1022	high

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

No known significant effects or critical hazards.
 Release of large quantities into water may cause a pH-change resulting in danger for aquatic life.

9/13

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	UN3267	Corrosive liquid, basic, organic, n.o.s. (2-aminoethanol)	8	111	\diamond	Limited quantity
TDG Classification	UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N. O.S. (2-aminoethanol)	8	111	\diamond	Limited quantity
Mexico Classification	UN3267	LIQUIDO CORROSIVO, BASICO, ORGANICO, N.E.P. (2-aminoethanol)	8	111	\diamond	Limited quantity
IMDG Class	UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N. O.S. (2-aminoethanol)	8	111	\diamond	Limited quantity
IATA-DGR Class	UN3267	Corrosive liquid, basic, organic, n.o.s. (2-aminoethanol)	8	111	*	See DG LIst.

PG* : Packing group

1,1'-oxydipropan-2	-ol		
Exempt/Partial exe	emption: Not detern	nined	
ventory (TSCA 8b): Not determined.		
	•	Exempt/Partial exemption: Not determ ventory (TSCA 8b): Not determined.	Exempt/Partial exemption: Not determined ventory (TSCA 8b): Not determined.

15. Regulatory information

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	: Reactive

Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	(acute) health	Delayed (chronic) health hazard
2-(2-butoxyethoxy)ethanol	5 - 10	Yes.	No.	No.	Yes.	No.
potassium carbonate	5 - 10	No.	No.	No.	Yes.	No.
2-aminoethanol	1 - 2.5	Yes.	No.	No.	Yes.	No.
d-Limonene	0.1 - 1	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	2-(2-butoxyethoxy)ethanol	112-34-5	7.5
Supplier notification	2-(2-butoxyethoxy)ethanol	112-34-5	7.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

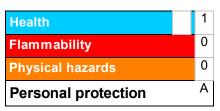
State regulations

Massachusetts New York	 The following components are listed: ETHANOLAMINE None of the components are listed.
New Jersey	: The following components are listed: ETHANOLAMINE; ETHANOL, 2-AMINO-; GLYCOL
New Jeisey	ETHERS
Pennsylvania	: The following components are listed: ETHANOL, 2-AMINO-; GLYCOL ETHERS
<u>Label elements</u>	
Signal word	: CAUTION
Hazard statements	: CAUSES EYE IRRITATION. Contains Monoethanolamine.
Precautionary measures	: Keep out of reach of children. Do not get in 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.

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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 IBC = 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	: 27/05/2015.
Date of previous issue	: 28/09/2009.
Version	: 2
Prepared by	: Reckitt Benckiser LLC. Product Safety Department 1 Philips Parkway Montvale, New Jersey 07646-1810 USA. FAX: 201-476-7770

16. Other information

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.