SAFETY DATA SHEET



Detergent 200

Γ	
Section 1. Identit	fication
GHS product identifier	: Detergent 200
Other means of identification	: Not available.
Product type	: Liquid.
Relevant identified uses or	f the substance or mixture and uses advised against
Not applicable.	
Supplier's details	: Betco Corporation 1001 Brown Avenue Toledo, OH 43607 www.betco.com 888-462-3826
Emergency telephone number (with hours of operation)	: Chemtrec 800-424-9300 (24 Hour)
Section 2. Hazar	ds identification
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: ACUTE TOXICITY (oral) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: Harmful if swallowed. Causes serious eye irritation. Causes skin irritation.
Precautionary statements	<u>S</u>
Prevention	: Wear protective gloves. 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 ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. 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.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture Other means of identification

: Mixture

: Not available.

CAS number/other identifiers

CAS number	: Not applicable.
Product code	: 471

Ingredient name	%	CAS number
sodium dodecylbenzenesulfonate	≥5.6 - <7.1	25155-30-0
Alcohols, C9-11, ethoxylated	≥4 - <5	68439-46-3
sodium dodecyl sulphate	≥2.26 - <2.89	151-21-3

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.

Occupational exposure limits, if available, are listed in Section 8.

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. Continue to rinse for at least 10 minutes. Get medical attention. 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 immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptom	oms/effects, acute and delayed
Potential acute health	<u>ı effects</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation.
Ingestion	: Harmful if swallowed.
Over-exposure signs	/symptoms

Section 4. First aid measures

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

Section 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 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.
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.

Section 6. Accidental release measures

Personal precautions, protec	tiv	<u>e equipmer</u>	nt and emergene	<u>cy procedu</u>	<u>ires</u>				
For non-emergency personnel	:	Evacuate s entering. D Provide add	shall be taken inv surrounding areas Do not touch or w equate ventilation e. Put on appropri	s. Keep un alk through n. Wear ap	necessary spilled ma	and unprotee Iterial. Avoid espirator whe	cted perso breathing en ventilat	onnel from g vapor or m	ıist.
For emergency responders	:	in Section 8	ed clothing is req 8 on suitable and 9 personnel".						
Environmental precautions	:	and sewers	ersal of spilled mass. Inform the rele ewers, waterway	evant autho	rities if the		,		
Date of issue/Date of revision		: 4/1/2015.	Date of previous	issue	: No previou	us validation.	Version	:1	3/12

Section 6. Accidental release measures

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.

Section 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.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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. 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.

Section 8. Exposure controls/personal protection

Control parameters Occupational exposure limits

None.

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	res
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.
Date of issue/Date of revision	: 4/1/2015. Date of previous issue : No previous validation. Version : 1 4/12

Section 8. Exposure controls/personal protection

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.

Section 9. Physical and chemical properties

Appearance		
Physical state	Liquid.	
Color	Violet.	
Odor	Pleasant.	
Odor threshold	Not available.	
рН	8.5 to 9.5	
Melting point	Not available.	
Boiling point	Not available.	
Flash point	Closed cup: Not applicable. [Product does not sustain combustion.]	
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	1.0432	
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.	
· ·		

Section 10. Stability and reactivity

Reactivity	: No specific	test data related to react	ivity available for this proc	duct or its ingredien	ts.
Chemical stability	: The produc	t is stable.			
Possibility of hazardous reactions	: Under norn	nal conditions of storage a	and use, hazardous react	ions will not occur.	
Conditions to avoid	: No specific	data.			
Date of issue/Date of revision	: 4/1/2015.	Date of previous issue	: No previous validation.	Version : 1	5/12

Section 10. Stability and reactivity

Incompatible materials : No specific data.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity				
Product/ingredient name	Result	Species	Dose	Exposure
sodium dodecylbenzenesulfonate	LC50 Inhalation Vapor	Rat	310 mg/m ³	4 hours
Alcohols, C9-11, ethoxylated	LD50 Oral LD50 Dermal	Rat Rabbit	438 mg/kg 2 g/kg	
sodium dodecyl sulphate	LD50 Oral LD50 Oral	Rat Rat	1378 mg/kg 1288 mg/kg	-

Irritation/Corrosion

sodium dodecylbenzenesulfonateEyes - Severe irritant Eyes - Severe irritant Skin - Moderate irritantRabbit-24 hours 250 Micrograms - 24 hours 20-sodium dodecyl sulphateEyes - Severe irritant Skin - Moderate irritantRabbit-24 hours 20 milligrams - 250-sodium dodecyl sulphateEyes - Mild irritant Eyes - Moderate irritant Skin - Mild irritantRabbit-24 hours 20 milligrams - 24 hours 100 - milligrams Skin - Mild irritant Skin - Mild irritantRabbit-24 hours 25 milligrams - 24 hours 25 - milligrams Skin - Mild irritant Skin - Mild irritantHuman-24 hours 25 milligrams - 24 hours 25 - milligrams -Skin - Mild irritant Skin - Mild irritantHuman-24 hours 0.3 - Percent - 24 hours 0.3 - Percent -Skin - Mild irritant Skin - Mild irritantHuman-24 hours 0.5 - Percent - 24 hours 0.5 - PercentSkin - Mild irritant Skin - Mild irritantHuman-47 hours 0.5 - Percent - - Percent - - PercentSkin - Mild irritant Skin - Mild irritantHuman-48 hours 3 - - - Percent - - Percent - - Percent - Skin - Moderate irritantHuman-Skin - Moderate irritant Skin - Moderate irritantHuman-24 hours 0.1 - Percent - 	bservation	xposure	Score	Species	Result	Product/ingredient name
Eyes - Severe irritant Skin - Moderate irritantRabbit Rabbit-1 Percent sodium dodecyl sulphateEyes - Mild irritant Eyes - Moderate irritant Skin - Mild irritantRabbitByes - Moderate irritant Skin - Mild irritantRabbit-24 hours 20 Micrograms-Eyes - Moderate irritant Skin - Mild irritantRabbit-24 hours 100 milligrams-Skin - Mild irritantRabbit-10 milligrams milligrams-Skin - Mild irritantGuinea pig-24 hours 25 milligrams-Skin - Mild irritantHuman-2 hours 2 Percent-Skin - Mild irritantHuman-24 hours 0.3 Percent-Skin - Mild irritantHuman-24 hours 0.6 Percent-Skin - Mild irritantHuman-24 hours 0.5 Percent-Skin - Mild irritantHuman-24 hours 2.5 milligrams-Skin - Mild irritantHuman-24 hours 2.5 Percent-Skin - Mild irritantHuman-24 hours 0.5 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 2.5 Percent-Skin - Moderate irritantHuman-24 hours 2.5 Percent-Skin - Moderate irritantHuman-24 hours 2.5 Percent-Skin - Moderate irritantHuman- <td< td=""><td></td><td>4 hours 250</td><td>-</td><td>Rabbit</td><td>Eyes - Severe irritant</td><td>sodium</td></td<>		4 hours 250	-	Rabbit	Eyes - Severe irritant	sodium
Eyes - Severe irritant Skin - Moderate irritantRabbit Rabbit-1 Percent 24 hours 20 milligramssodium dodecyl sulphateEyes - Mild irritant Eyes - Moderate irritant Skin - Mild irritantRabbit-24 hours 20 MicrogramsEyes - Moderate irritant Skin - Mild irritantRabbit-24 hours 100 milligramsEyes - Moderate irritant Skin - Mild irritantRabbit-10 milligrams milligramsSkin - Mild irritantGuinea pig-24 hours 25 milligramsSkin - Mild irritantHuman-2 hours 2 PercentSkin - Mild irritantHuman-2 hours 0.3 PercentSkin - Mild irritantHuman-24 hours 0.06 PercentSkin - Mild irritantHuman-2 hours 0.5 PercentSkin - Mild irritantHuman-47 hours 0.5 PercentSkin - Mild irritantHuman-48 hours 2 PercentSkin - Mild irritantHuman-48 hours 2 PercentSkin - Mild irritantHuman-24 hours 0.5 PercentSkin - Mild irritantHuman-48 hours 2 PercentSkin - Moderate irritantHuman-24 hours 0.1 PercentSkin - Moderate irritantHuman-24 hours 25 PercentSkin - Moderate irritantHuman-24 hours 25 PercentSkin - Moderate irritantHuman-24 hours 25 PercentSkin - Moderate irritantHuman-24 hours 25 PercentS		licrograms				dodecylbenzenesulfonate
Skin - Moderate irritantRabbit-24 hours 20 milligramssodium dodecyl sulphateEyes - Mild irritantRabbit-250-Eyes - Moderate irritantRabbit-24 hours 100-Eyes - Moderate irritantRabbit-10 milligrams-Skin - Mild irritantDog-24 hours 25-Skin - Mild irritantGuinea pig-24 hours 25-Skin - Mild irritantHuman-2 hours 2-Skin - Mild irritantHuman-24 hours 0.3-Skin - Mild irritantHuman-24 hours 0.3-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-48 hours 3-Skin - Mild irritantHuman-48 hours 3-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irrit			-	Rabbit	Eves - Severe irritant	2
sodium dodecyl sulphateEyes - Mild irritantRabbit-250-Eyes - Moderate irritantRabbit-24 hours 100-Eyes - Moderate irritantRabbit-10 milligrams-Skin - Mild irritantBabbit-10 milligrams-Skin - Mild irritantGuinea pig-24 hours 25-Skin - Mild irritantHuman-2 hours 25-Skin - Mild irritantHuman-2 hours 25-Skin - Mild irritantHuman-2 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-18 hours 3-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 0.5-Skin - Moderate irritantHuman-24 hours 3-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritant <td></td> <td></td> <td>-</td> <td>Rabbit</td> <td></td> <td></td>			-	Rabbit		
sodium dodecyl sulphateEyes - Mild irritantRabbit-250-Eyes - Moderate irritantRabbit-24 hours 100-Eyes - Moderate irritantRabbit-10 milligrams-Skin - Mild irritantBabbit-10 milligrams-Skin - Mild irritantGuinea pig-24 hours 25-Skin - Mild irritantHuman-2 hours 25-Skin - Mild irritantHuman-2 hours 25-Skin - Mild irritantHuman-2 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-18 hours 3-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 0.5-Skin - Moderate irritantHuman-24 hours 3-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritant <td></td> <td>nilligrams</td> <td></td> <td></td> <td></td> <td></td>		nilligrams				
Eyes - Moderate irritantRabbit-Micrograms 24 hours 100 milligramsEyes - Moderate irritantRabbit-10 milligramsSkin - Mild irritantDog-24 hours 25 milligramsSkin - Mild irritantGuinea pig-24 hours 25 milligramsSkin - Mild irritantHuman-2 hours 2Skin - Mild irritantHuman-204 hours 0.3 PercentSkin - Mild irritantHuman-24 hours 0.3 PercentSkin - Mild irritantHuman-24 hours 0.3 PercentSkin - Mild irritantHuman-24 hours 0.5 PercentSkin - Mild irritantHuman-22 hours 10 PercentSkin - Mild irritantHuman-47 hours 0.5 PercentSkin - Mild irritantHuman-18 hours 2 PercentSkin - Mild irritantHuman-24 hours 0.5 PercentSkin - Mild irritantHuman-24 hours 2.5 PercentSkin - Mild irritantHuman-24 hours 2.5 PercentSkin - Moderate irritantHuman-24 hours 2.5 PercentSkin - Moderate irritantHuman-24 hours 2.5 PercentSkin - Mid irritantHuman-24 hours 2.5 PercentSkin - Moderate irritantHuman-24 hours 2.5 PercentSkin - Mild irritantPig-24 hours 2.5 PercentSkin - Mild irritantPig-24 hours 2.5 PercentSkin - Mild irritant<			-	Rabbit	Eves - Mild irritant	sodium dodecyl sulphate
Eyes - Moderate irritantRabbit-24 hours 100 milligrams-Eyes - Moderate irritantRabbit-10 milligrams-Skin - Mild irritantDog-24 hours 25 milligrams-Skin - Mild irritantGuinea pig-24 hours 25 milligrams-Skin - Mild irritantHuman-2 hours 2 Percent-Skin - Mild irritantHuman-24 hours 0.3 Percent-Skin - Mild irritantHuman-24 hours 0.06 Percent-Skin - Mild irritantHuman-24 hours 0.5 Percent-Skin - Mild irritantHuman-24 hours 0.5 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-48 hours 3 Percent-Skin - Mild irritantHuman-24 hours 0.5 Percent-Skin - Mild irritantHuman-24 hours 25 Percent-Skin - Moderate irritantHuman-24 hours 2 Percent-Skin - Moderate irritantHuman-24 hours 25 Percent-Skin - Moderate irritantHuman-24 hours 25 Percent-Skin - Mild irritantPig-24 hours 25 Percent-Skin - Mild irritantPig-24 hours 25 Percent-Skin - Mild irritantPig-24 hours 25 Percent-Skin - Mild irritantPig		licrograms			,	, , , , , , , , , , , , , , , , , , ,
YmilligramsEyes - Moderate irritantRabbit-10 milligramsSkin - Mild irritantDog-24 hours 25Dog-24 hours 25-milligramsSkin - Mild irritantGuinea pig-Skin - Mild irritantHuman-2 hours 2-Skin - Mild irritantHuman-20 hours 0.3-Skin - Mild irritantHuman-504 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 25-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritantMouse-24 hours 25-Skin - Mild irritantPig-24 hours 25-			-	Rabbit	Eves - Moderate irritant	
Eyes - Moderate irritant Skin - Mild irritantRabbit Dog-10 milligrams ramiligrams-Skin - Mild irritantGuinea pig-24 hours 25 milligrams-Skin - Mild irritantHuman-24 hours 2-Skin - Mild irritantHuman-24 hours 0.3-Skin - Mild irritantHuman-504 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 0.5-Skin - Mild irritantHuman-24 hours 25-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritantMouse-24 hours 25-Skin - Mild irritantPig-24 hours 25-					,	
Skin - Mild irritantDog-24 hours 25-Skin - Mild irritantGuinea pig-24 hours 25-Skin - Mild irritantHuman-2 hours 2-Skin - Mild irritantHuman-2 hours 0.3-Skin - Mild irritantHuman-24 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-18 hours 2-Skin - Moderate irritantHuman-24 hours 0.5-Skin - Moderate irritantHuman-24 hours 0.5-Skin - Moderate irritantHuman-24 hours 0.1-PercentSkin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 25-Skin - Mild irritantPig-24 hours 25-Skin - Mild irritantPig-24 hours 25-			-	Rabbit	Eves - Moderate irritant	
Skin - Mild irritantGuinea pig-milligrams 24 hours 25 milligramsSkin - Mild irritantHuman-2 hours 2 PercentSkin - Mild irritantHuman-504 hours 0.3 PercentSkin - Mild irritantHuman-24 hours 0.06 PercentSkin - Mild irritantHuman-22 hours 10 PercentSkin - Mild irritantHuman-22 hours 10 PercentSkin - Mild irritantHuman-47 hours 0.5 PercentSkin - Mild irritantHuman-18 hours 2 PercentSkin - Mild irritantHuman-24 hours 0.5 PercentSkin - Mild irritantHuman-24 hours 2.5 PercentSkin - Moderate irritantHuman-24 hours 0.1 PercentSkin - Moderate irritantHuman-24 hours 2.5 PercentSkin - Moderate irritantMouse-24 hours 2.5 milligramsSkin - Mild irritantPig-24 hours 2.5 milligrams			-			
Skin - Mild irritantGuinea pig-24 hours 25-Skin - Mild irritantHuman-2 hours 2-Skin - Mild irritantHuman-504 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-18 hours 3-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 25-Skin - Moderate irritantPig-24 hours 25-				- 5		
Skin - Mild irritantHuman-milligrams 2 hours 2-Skin - Mild irritantHuman-504 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-18 hours 3-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 2.5-Skin - Moderate irritantMouse-24 hours 2.5-Skin - Mild irritantPig-24 hours 2.5-			_	Guinea pig	Skin - Mild irritant	
Skin - Mild irritantHuman-2 hours 2-Skin - Mild irritantHuman-504 hours 0.3-Skin - Mild irritantHuman-24 hours 0.06-Skin - Mild irritantHuman-22 hours 10-Skin - Mild irritantHuman-22 hours 0.5-Skin - Mild irritantHuman-47 hours 0.5-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-18 hours 2-Skin - Mild irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantHuman-24 hours 2.5-Skin - Mild irritantPig-24 hours 2.5-				e annoa pig		
Skin - Mild irritantHuman-Percent 504 hours 0.3 PercentSkin - Mild irritantHuman-24 hours 0.06 PercentSkin - Mild irritantHuman-22 hours 10 PercentSkin - Mild irritantHuman-22 hours 10 PercentSkin - Mild irritantHuman-47 hours 0.5 PercentSkin - Mild irritantHuman-18 hours 2 PercentSkin - Mild irritantHuman-18 hours 2 PercentSkin - Moderate irritantHuman-48 hours 3 PercentSkin - Moderate irritantHuman-24 hours 0.1 PercentSkin - Moderate irritantHuman-24 hours 25 PercentSkin - Moderate irritantMouse-24 hours 25 PercentSkin - Mild irritantPig-24 hours 25 Percent			_	Human	Skin - Mild irritant	
Skin - Mild irritantHuman-504 hours 0.3 Percent-Skin - Mild irritantHuman-24 hours 0.06 Percent-Skin - Mild irritantHuman-22 hours 10 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 Mulligrams-						
Skin - Mild irritantHuman-Percent 24 hours 0.06 Percent-Skin - Mild irritantHuman-22 hours 10 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantHuman-24 hours 25 Percent-Skin - Mild irritantPig-24 hours 25 Percent-			_	Human	Skin - Mild irritant	
Skin - Mild irritantHuman-24 hours 0.06 Percent-Skin - Mild irritantHuman-22 hours 10 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 Percent-Skin - Mild irritantPig-24 hours 25 Percent-						
Skin - Mild irritantHuman-Percent 22 hours 10 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 24 hours 25-			_	Human	Skin - Mild irritant	
Skin - Mild irritantHuman-22 hours 10 Percent-Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 24 hours 25-						
Skin - Mild irritantHuman-Percent 47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 24 hours 25-			_	Human	Skin - Mild irritant	
Skin - Mild irritantHuman-47 hours 0.5 Percent-Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 24 hours 25-						
Skin - Mild irritantHuman-Percent 18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 24 hours 25-			_	Human	Skin - Mild irritant	
Skin - Mild irritantHuman-18 hours 2 Percent-Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 						
Skin - Moderate irritantHuman-Percent 48 hours 3 PercentSkin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25-			_	Human	Skin - Mild irritant	
Skin - Moderate irritantHuman-48 hours 3 Percent-Skin - Moderate irritantHuman-24 hours 0.1-Skin - Moderate irritantMouse-24 hours 25-Skin - Mild irritantPig-24 hours 25-						
Skin - Moderate irritantHuman-Percent 24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 24 hours 25-			_	Human	Skin - Moderate irritant	
Skin - Moderate irritantHuman-24 hours 0.1 Percent-Skin - Moderate irritantMouse-24 hours 25 milligrams-Skin - Mild irritantPig-24 hours 25 						
Skin - Moderate irritantMousePercentSkin - Mild irritantPig-24 hours 25 milligrams-			_	Human	Skin - Moderate irritant	
Skin - Moderate irritantMouse-24 hours 25-Skin - Mild irritantPig-24 hours 25-						
Skin - Mild irritant Pig - 24 hours 25 -			_	Mouse	Skin - Moderate irritant	
Skin - Mild irritant Pig - 24 hours 25 -						
5			-	Pia	Skin - Mild irritant	
		nilligrams		9		
Skin - Mild irritant Rabbit - 24 hours 50 -		•	-	Rabbit	Skin - Mild irritant	
milligrams						
Skin - Moderate irritant Rabbit - 24 hours 25 -			_	Rabbit	Skin - Moderate irritant	
milligrams						

Sensitization

Not available.

Section 11. Toxicological information

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

<u>Specific target organ toxicity (repeated exposure)</u> Not available.

Aspiration hazard

routes of exposure

Not available.

Information on the likely	: Routes of entry anticipated: Oral, De	ermal.
	· · · · · · · · · · · · · · · · · · ·	511110411

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation.
Ingestion	: Harmful if swallowed.

Symptoms related to the phy	sical, chemical and toxicological characteristics	
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness	
Inhalation	: No specific data.	
Skin contact	: Adverse symptoms may include the following: irritation redness	
Ingestion	: No specific data.	
-	ts and also chronic effects from short and long term exposure	
<u>Short term exposure</u>		
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	<u>cts</u>	
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.	

Section 11. Toxicological information

Teratogenicity	1
Developmental effects	1
Fertility effects	:

No known significant effects or critical hazards.

: No known significant effects or critical hazards.

: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1582.4 mg/kg

Section 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
duccybenzenesunonate	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
Alcohols, C9-11, ethoxylated	Acute EC50 5.36 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 2686 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8500 µg/l Fresh water	Fish - Pimephales promelas	96 hours
sodium dodecyl sulphate	Acute EC50 1200 µg/l Marine water	Algae - Skeletonema costatum	96 hours
, , , , , , , , , , , , , , , , , , ,	Acute LC50 900 µg/l Marine water	Crustaceans - Artemia salina - Adult	48 hours
	Acute LC50 1400 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 590 µg/l Fresh water	Fish - Cirrhinus mrigala - Larvae	96 hours
	Chronic NOEC 1.25 mg/l Marine water	Algae - Ulva fasciata - Zoea	96 hours
	Chronic NOEC 1 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	21 days
	Chronic NOEC 3.2 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC >1357 µg/l Fresh water	Fish - Pimephales promelas	42 days

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
sodium dodecylbenzenesulfonate Alcohols, C9-11, ethoxylated sodium dodecyl sulphate	1.96 - -2.03	- 237 -	low low low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Section 12. Ecological information

Other adverse effects

: No known significant effects or critical hazards.

Section 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.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-	-
Packing group	-	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.	No.
Additional information	Reportable quantity 14285.7 lbs / 6485.7 kg [1642.4 gal / 6217.1 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	-	-	-		-

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

9/12

Section 14. Transport information

Transport in bulk according : Not available. to Annex II of MARPOL 73/78 and the IBC Code

Section 15. Regulatory information

Ŭ	5
U.S. Federal regulations	: TSCA 8(a) PAIR: 2-(4-tert-butylbenzyl)propionaldehyde
	TSCA 8(a) CDR Exempt/Partial exemption: Not determined
	Not determined.
	Clean Water Act (CWA) 311: sodium dodecylbenzenesulfonate; sodium hydroxide
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
<u>SARA 302/304</u>	

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

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
sodium dodecylbenzenesulfonate	≥5.6 - <7.1	No.	No.	No.	Yes.	No.
Alcohols, C9-11, ethoxylated sodium dodecyl sulphate	≥4 - <5 ≥2.26 - <2.89	No. Yes.	No. No.	No. No.	Yes. Yes.	No. No.

State regulations

Massachusetts	:	The following components are listed: SODIUM DODECYLBENZENE SULFONATE; Sodium Hydroxide Solution
New York	1	The following components are listed: Dodecylbenzene sulfonate
New Jersey	:	The following components are listed: SODIUM DODECYLBENZENE SULFONATE; BENZENESULFONIC ACID, DODECYL-, SODIUM SALT; Sodium Hydroxide Solution; PROPYLENE GLYCOL; 1,2-PROPANEDIOL
Pennsylvania	:	The following components are listed: BENZENESULFONIC ACID, DODECYL-, SODIUM SALT; Sodium Hydroxide Solution; 1,2-PROPANEDIOL
International regulations		

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Section 15. Regulatory information

Section 15. Key	ulatory information			
Stockholm Convention	on Persistent Organic Pollutants			
Not listed.				
Rotterdam Convention on Prior Inform Consent (PIC) Not listed.				
UNECE Aarhus Protocol on POPs and Heavy Metals				
Not listed.				
International lists National inventory				
Australia	: Not determined.			
Canada	: Not determined.			
China	: Not determined.			
Europe	: Not determined.			
Japan	: Not determined.			
Malaysia	: Not determined.			
New Zealand	: Not determined.			
Philippines	: Not determined.			
Republic of Korea	: Not determined.			
Taiwan	: Not determined.			

Section 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 SDSs 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.)



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

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

Procedure used to derive the classification

Section 16. Other information

Classification		Justification	
Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319		Calculation method Calculation method Calculation method	
<u>History</u>			
Date of printing	: 4/1/2015.		
Date of issue/Date of revision	: 4/1/2015.		
Date of previous issue	: No previous validation.		
Version	: 1		
Key to abbreviations	BCF = Bioconcentration Fa GHS = Globally Harmonize IATA = International Air Tr IBC = International Air Tr IMDG = International Marii LogPow = logarithm of the MARPOL 73/78 = Internat	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate 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)	
References	: Not available.		

✓ 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.