SAFETY DATA SHEET



Detergent 200

Section 1. Identif	fication
GHS product identifier	: Detergent 200
Other means of identification	: Not available.
Product type	: Liquid.
Relevant identified uses of Not applicable.	the substance or mixture and uses advised against
Supplier's details	: Betco Corporation 400 Van Camp Road Bowling Green, Ohio 43402 www.betco.com 888-462-3826
Emergency telephone number (with hours of operation)	: Chemtrec (800) 424-9300 24 hour
Section 2. Hazard	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	: EYE IRRITATION - Category 2A
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: Causes serious eye irritation.
Precautionary statements	-
Prevention	 Wear eye or face protection. Wash hands thoroughly after handling.
Response	: 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	: Not applicable.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of	: Not available.
identification	

CAS number/other identifiers			
CAS number	:	Not applicable.	
Product code	:	471	

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Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Alcohols, C9-11, ethoxylated	≥5 - <7.1 ≥3 - <5 ≥1 - <2.89	25155-30-0 68439-46-3 68585-47-7

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. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important sympton	oms/effects, acute and delayed
Potential acute health	<u>effects</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
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 immediat	e 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.

Section 4. First aid measures

Specific treatments

Protection of first-aiders

: No specific treatment.

: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

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, 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 specialized 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 co	nta	ainment 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.	

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Section 7. Handling and storage

Precautions for safe handling		
Protective measures	co co cl	Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid ontact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original ontainer or an approved alternative made from a compatible material, kept tightly losed when not in use. Empty containers retain product residue and can be hazardous. To not reuse container.
Advice on general occupational hygiene	ha di ei	Eating, drinking and smoking should be prohibited in areas where this material is andled, stored and processed. Workers should wash hands and face before eating, rinking and smoking. Remove contaminated clothing and protective equipment before ntering eating areas. See also Section 8 for additional information on hygiene neasures.
Conditions for safe storage, including any incompatibilities	di (s re uj	Store in accordance with local regulations. Store in original container protected from irect 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 eady for use. Containers that have been opened must be carefully resealed and kept pright to prevent leakage. Do not store in unlabeled containers. Use appropriate ontainment 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 measures	<u>8</u>
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: 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.

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Section 8. Exposure controls/personal protection

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Violet. Clear. to Hazy
Odor	: Pleasant.
Odor threshold	: Not available.
рН	: 8.5 to 9.5
Melting point	: Not available.
Boiling point	: Not available.
Flash point	: Closed cup: >100°C (>212°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.0432
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

Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Incompatible materials	: No specific data.
Conditions to avoid	: No specific data.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Chemical stability	: The product is stable.
Reactivity	: No specific test data related to reactivity available for this product or its ingredients.

Section 11. Toxicological information

Information on toxicological effects Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
sodium dodecylbenzenesulfonate	LC50 Inhalation Dusts and mists	Rat	310 mg/m³	4 hours
Alcohols, C9-11, ethoxylated	LD50 Oral LD50 Dermal LD50 Oral	Rabbit	438 mg/kg 2 g/kg 1378 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 Skin - Moderate irritant	Rabbit Rabbit	-	1 Percent 24 hours 20	-
				milligrams	

Sensitization

Not available.

Mutagenicity

Not available.

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	:	Routes of entry anticipated: Oral, Dermal. Routes of entry not anticipated: Inhalation.
Potential acute health effects	2	
Eye contact	:	Causes serious eye irritation.
Inhalation	1	No known significant effects or critical hazards.
Skin contact	:	No known significant effects or critical hazards.
Ingestion	:	No known significant effects or critical hazards.
Eye contact	:	al, chemical and toxicological characteristics Adverse symptoms may include the following: pain or irritation watering redness No specific data.
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness

Delayed and immediate effects and also chronic effects from short and long term exposure

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Section 11. Toxicological information

<u>Short term exposure</u>	
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 effe	<u>ects</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.
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	
Route	ATE value
Oral	4612.2 mg/kg

Section 12. Ecological information

Tox	icit	/
	_	

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
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
Sulfuric acid, mono- C10-16-alkyl esters, sodium salts	Acute EC50 1.37 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow		BCF	Potential	
sodium dodecylbenzenesulfonate	1.96		-	low	
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Section 12. Ecological information

Mobility in soil

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

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.
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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.					

Section 14. Transport information

Special precautions for user	1	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.

Transport in bulk according : Not available. to Annex II of MARPOL and

the IBC Code

Section 15. Regula	ator	y informat	tion				
U.S. Federal regulations	 TSCA 8(a) PAIR: α-hexylcinnamaldehyde; 2-(4-tert-butylbenzyl)propionaldehyde; vani TSCA 8(a) CDR Exempt/Partial exemption: Not determined Not determined. Clean Water Act (CWA) 311: sodium dodecylbenzenesulfonate; sodium hydroxide; sodium hypochlorite, solution 						
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	: Li	sted					
Clean Air Act Section 602 Class I Substances	: No	ot listed					
Clean Air Act Section 602 Class II Substances	: No	ot listed					
DEA List I Chemicals (Precursor Chemicals)	: No	ot listed					
DEA List II Chemicals (Essential Chemicals)	: No	ot listed					
SARA 302/304							
Composition/information of	on ing	<u>redients</u>					
No products were found.							
SARA 304 RQ	: No	ot applicable.					
SARA 311/312							
Classification	: Im	mediate (acute)	health haza	rd			
Composition/information of	on ing	redients					
Name		%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
sodium		≥5 - <7.1	No.	No.	No.	Yes.	No.
dodecylbenzenesulfonate Alcohols, C9-11, ethoxylated Sulfuric acid, mono-C10-16-alkyl esters, sodium salts		≥3 - <5 ≥1 - <2.89	No. No.	No. No.	No. No.	Yes. Yes.	No. No.
State regulations		•		•			-:
Massachusetts		ne following comp odium Hydroxide		listed: SODIU	IM DODECYL	BENZENE SUI	FONATE;
New York		ne following comp		listed: Sodiun	n dodecylbenz	ene sulfonate:	

New Fork	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

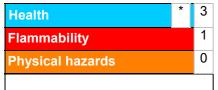
Section 15. Regulatory information

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals Not listed. Montreal Protocol (Annexes A, B, C, E) Not listed. **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 inventory (ENCS): Not determined. Japan Japan inventory (ISHL): 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.)



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Section 16. Other information

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

Clas	sification	Justification		
Eye Irrit. 2A, H319		Calculation method		
History				
Date of printing	: 6/2/2017			
Date of issue/Date of revision	: 6/2/2017			
Date of previous issue	: 3/2/2017			
Version	: 1.04			
Key to abbreviations	BCF = Bioconcentration Fa GHS = Globally Harmonize IATA = International Air Tra IBC = Intermediate Bulk Co IMDG = International Mariti LogPow = logarithm of the MARPOL = International Co	: 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 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations		
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.