

# MATERIAL SAFETY DATA SHEET



## BRAVO Heavy Duty Low Odor Stripper

HMIS		NFPA	Personal protective equipment
Health	3	3	
Fire Hazard	0	0	
Reactivity	0	0	

Version Number: 2

Preparation date: 2008-05-19

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** BRAVO Heavy Duty Low Odor Stripper

**MSDS #:** 114585005  
**Product Code:** 04576, 04583, 04588  
**Recommended use:** Industrial/Institutional. Floor stripper.

**Manufacturer, importer, supplier:**  
 US Headquarters: JohnsonDiversey, Inc. 8310 16th St. Sturtevant, Wisconsin 53177-1964  
 Phone: 1-888-352-2249  
 MSDS Internet Address: www.johnsondiverse.com  
 Canadian Headquarters: JohnsonDiversey - Canada, Inc. 2401 Bristol Circle Oakville, Ontario L6H 6P1  
 Phone: 1-800-668-3131

**Emergency telephone number:** 1-800-851-7145 (Prosar); 1-651-917-6133 (Int'l Prosar); 01-800-710-3400 (México)

### 2. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

**DANGER. CORROSIVE. CAUSES SKIN AND EYE BURNS. HARMFUL OR FATAL IF SWALLOWED.**

**Principle routes of exposure:** Eye contact. Skin contact. Inhalation.  
**Eye contact:** Corrosive. Causes permanent eye damage, including blindness.  
**Skin contact:** Corrosive. Causes permanent damage.  
**Inhalation:** May cause irritation and corrosive effects to nose, throat and respiratory tract.  
**Ingestion:** Corrosive. Causes burns to mouth, throat and stomach.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous ingredients

Ingredient(s)	CAS #	Weight %	LD50 Oral - Rat (mg/kg)	LD50 Dermal - Rabbit	LC50 Inhalation - Rat
Monoethanolamine	141-43-5	5 - 10%	1720	1 mL/kg	Not available
Sodium hydroxide	1310-73-2	5 - 10%	140	1350 mg/kg	Not available

### 4. FIRST AID MEASURES

**Eye contact:** Immediately flush eyes with running water for 15-20 minutes, keeping eyelids open. Get medical attention immediately.  
**Skin contact:** Immediately flush with plenty of water for 15-20 minutes. Get medical attention immediately.  
**Inhalation:** If breathing is affected, remove to fresh air. Get medical attention immediately.  
**Ingestion:** If swallowed, rinse mouth. Give a cupful of water or milk. THEN IMMEDIATELY CONTACT A PHYSICIAN OR POISON CENTER. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.  
**Aggravated Medical Conditions:** Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Dry chemical, water spray, foam, carbon dioxide.  
**Specific hazards:** None known.

## 5. FIRE-FIGHTING MEASURES

**Unusual hazards:** Corrosive material (See sections 8 and 10).  
**Specific methods:** No special methods required

**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Extinguishing media which must not be used for safety reasons:** None.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Put on appropriate personal protective equipment (see Section 8.).  
**Environmental precautions and clean-up methods:** Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Use a water rinse for final clean-up.

## 7. HANDLING AND STORAGE

**Handling:**  
Avoid contact with skin, eyes and clothing. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Wash thoroughly after handling. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

**Storage:**  
Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures to reduce exposure:**  
Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

### Personal Protective Equipment

**Eye protection:** Chemical-splash goggles.  
**Hand protection:** Chemical-resistant gloves  
**Skin and body protection:** Protective footwear. If major exposure is possible, wear suitable protective clothing and footwear.  
**Respiratory protection:** In case of insufficient ventilation wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice

Ingredient(s)	CAS #	ACGIH	OSHA	Mexico
Monoethanolamine	141-43-5	6 ppm (STEL) 3 ppm (TWA)	3 ppm (TWA) 6 mg/m <sup>3</sup> (TWA)	6 ppm (STEL) 15 mg/m <sup>3</sup> (STEL) 3 ppm (TWA) 8 mg/m <sup>3</sup> (TWA)
Sodium hydroxide	1310-73-2	2 mg/m <sup>3</sup> (Ceiling)	2 mg/m <sup>3</sup> (TWA)	2 mg/m <sup>3</sup> (Ceiling)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Liquid	<b>Bulk density:</b>	No information available
<b>pH:</b>	13.5	<b>Dilution pH:</b>	No information available.
<b>Appearance:</b>	Liquid	<b>Vapor density:</b>	No information available
<b>Color:</b>	Clear Colorless	<b>Evaporation Rate</b>	No information available
<b>Odor:</b>	Bland	<b>Boiling point/range:</b>	Not determined
<b>Specific gravity:</b>	1.10	<b>Melting point/range:</b>	Not determined
<b>Density:</b>	9.07 lbs/gal	<b>Decomposition temperature:</b>	Not determined
<b>VOC:</b>	5.1% *	<b>Autoignition temperature:</b>	No information available
<b>Flash point:</b>	>200°F >93.3°C	<b>Partition coefficient (n-octanol/water):</b>	No information available
<b>Solubility:</b>	completely soluble	<b>Solubility in other solvents:</b>	No information available
<b>Viscosity:</b>	No information available	<b>Elemental Phosphorus:</b>	0 %P

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

## 10. STABILITY AND REACTIVITY

**Stability:** The product is stable  
**Polymerization:** Hazardous polymerization does not occur  
**Hazardous decomposition products:** None reasonably foreseeable.  
**Materials to avoid:** Acids. Oxidising agents.  
**Conditions to avoid:** Do not freeze.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:** Corrosive; Oral LD50 estimated to be between 500 - 2000 mg/kg  
**Component Information:** See Section 3

**Chronic toxicity:** None known

**Specific effects**

- Carcinogenic effects:** None known
- Mutagenic effects:** None known
- Reproductive toxicity:** None known
- Target organ effects:** None known

## 12. ECOLOGICAL INFORMATION

**Environmental Information:** No data available

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**  
Undiluted product is regulated under environmental and transportation laws as a corrosive waste. Dispose of observing national or local regulations.  
**RCRA Hazard Class:** D002

## 14. TRANSPORT INFORMATION

**DOT/TDG:** Please refer to the Bill of Lading/receiving documents for up to date shipping information

## 15. REGULATORY INFORMATION

### International Inventories

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

### U.S. Regulations

**California Proposition 65:** This product is not subject to the reporting requirements under California's Proposition 65

### STATE RIGHT TO KNOW

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Monoethanolamine	141-43-5	X	X	X	X
Water	7732-18-5	-	-	-	-
Sodium hydroxide	1310-73-2	X	X	X	X

### CERCLA/ SARA

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Sodium hydroxide	1310-73-2	5 - 10%	1000		

**CAA HAP/CAA ODS/CWA Priority Pollutants:** None

### SARA 311/312 Hazard Categories

**Immediate:** X  
**Delayed:** -  
**Fire:** -  
**Reactivity:** -  
**Sudden Release of Pressure:** -

### Canada

**WHMIS hazard class:** E Corrosive material .



## 16. OTHER INFORMATION

**Reason for revision:** Not applicable  
**Prepared by:** NAPRAC  
**Additional advice:** None

## 16. OTHER INFORMATION

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# MATERIAL SAFETY DATA SHEET



## BRAVO Heavy Duty Low Odor Stripper

HMIS		NFPA	Personal protective equipment		
Health	3	3			
Fire Hazard	0	0			
Reactivity	0	0			

Version Number: 2

Preparation date: 2009-01-16

**Product name:** BRAVO Heavy Duty Low Odor Stripper

**MSDS #:** MS0300209

**Product Code:** 5115940, 5115958, 5115974, 5115991

**Recommended use:** Industrial/Institutional. Floor stripper. This product is intended to be diluted prior to use.

**Manufacturer, importer, supplier:**

US Headquarters JohnsonDiversey, Inc. 8310 16th St. Sturtevant, Wisconsin 53177-1964 Phone: 1-888-352-2249 MSDS Internet Address: www.johnsondiverse.com	Canadian Headquarters JohnsonDiversey - Canada, Inc. 2401 Bristol Circle Oakville, Ontario L6H 6P1 Phone: 1-800-668-3131
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**Emergency telephone number:** 1-800-851-7145 (Prosar); 1-651-917-6133 (Int'l Prosar); 01-800-710-3400 (México)

### EMERGENCY OVERVIEW

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**Skin contact:** Corrosive. Causes permanent damage.

**Inhalation:** May cause irritation and corrosive effects to nose, throat and respiratory tract.

**Ingestion:** Corrosive. Causes burns to mouth, throat and stomach.

### Hazardous ingredients

Ingredient(s)	CAS #	Weight %	LD50 Oral - Rat (mg/kg)	LD50 Dermal - Rabbit	LC50 Inhalation - Rat
Monoethanolamine	141-43-5	5 - 10%	1720	1 mL/kg	Not available
Ethyl alcohol	64-17-5	0.1 - 1.5%	7060	Not available	Not available
Sodium hydroxide	1310-73-2	5 - 10%	140	1350 mg/kg	Not available

**Eye contact:** Immediately flush eyes with running water for 15-20 minutes, keeping eyelids open. Get medical attention immediately.

**Skin contact:** Immediately flush with plenty of water for 15-20 minutes. Get medical attention immediately.

**Inhalation:** If breathing is affected, remove to fresh air. Get medical attention immediately.

**Ingestion:** If swallowed, rinse mouth. Give a cupful of water or milk. THEN IMMEDIATELY CONTACT A PHYSICIAN OR POISON CENTER. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Aggravated Medical Conditions:** Individuals with chronic respiratory disorders such as asthma, chronic bronchitis, emphysema, etc., may be more susceptible to irritating effects.

**Suitable extinguishing media:** The product is not flammable. Extinguish fire using agent suitable for surrounding fire.

**Specific hazards:** Not applicable

**Unusual hazards:** None known

**Specific methods:** No special methods required

**BRAVO Heavy Duty Low Odor Stripper**

**Special protective equipment for firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**Extinguishing media which must not be used for safety reasons:** No information available

**Personal precautions:** Use personal protective equipment  
**Environmental precautions and clean-up methods:** Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Use a water rinse for final clean-up.

**Handling:**

Avoid contact with skin, eyes and clothing. Do not taste or swallow. Avoid breathing vapors or mists. Use only with adequate ventilation. Remove and wash contaminated clothing and footwear before re-use. Wash thoroughly after handling. Product residue may remain on/in empty containers. All precautions for handling the product must be used in handling the empty container and residue. FOR COMMERCIAL AND INDUSTRIAL USE ONLY.

**Storage:**

Protect from freezing. Keep tightly closed in a dry, cool and well-ventilated place. KEEP OUT OF REACH OF CHILDREN.

**Engineering measures to reduce exposure:**

Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

**Personal Protective Equipment**

**Eye protection:** Chemical-splash goggles.  
**Hand protection:** Chemical-resistant gloves  
**Skin and body protection:** Protective footwear. If major exposure is possible, wear suitable protective clothing and footwear.  
**Respiratory protection:** In case of insufficient ventilation wear suitable respiratory equipment. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.  
**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice

Ingredient(s)	CAS #	ACGIH	OSHA	Mexico
Monoethanolamine	141-43-5	6 ppm (STEL) 3 ppm (TWA)	6 mg/m <sup>3</sup> (TWA) 3 ppm (TWA)	6 ppm (STEL) 15 mg/m <sup>3</sup> (STEL) 3 ppm (TWA) 8 mg/m <sup>3</sup> (TWA)
Ethyl alcohol	64-17-5	1000 ppm (TWA)	1900 mg/m <sup>3</sup> (TWA) 1000 ppm (TWA)	1000 ppm (TWA) 1900 mg/m <sup>3</sup> (TWA)
Sodium hydroxide	1310-73-2	2 mg/m <sup>3</sup> (Ceiling)	2 mg/m <sup>3</sup> (TWA)	2 mg/m <sup>3</sup> (Ceiling)

<b>Physical State:</b>	Liquid	<b>Bulk density:</b>	No information available
<b>pH:</b>	13	<b>Dilution pH:</b>	No information available.
<b>Appearance:</b>	Liquid	<b>Vapor density:</b>	No information available
<b>Color:</b>	Clear Colorless	<b>Evaporation Rate</b>	No information available
<b>Odor:</b>	No Odor/Odorless	<b>Boiling point/range:</b>	Not determined
<b>Specific gravity:</b>	1.089	<b>Melting point/range:</b>	Not determined
<b>Density:</b>	9.08 lbs/gal	<b>Decomposition temperature:</b>	Not determined
<b>VOC:</b>	5.1% *	<b>Autoignition temperature:</b>	No information available
<b>Flash point:</b>	>200°F >93.3°C	<b>Partition coefficient (n-octanol/water):</b>	No information available
<b>Solubility:</b>	Completely Soluble	<b>Solubility in other solvents:</b>	No information available
<b>Viscosity:</b>	No information available	<b>Elemental Phosphorus:</b>	0 %P

\* - Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Article 2, Consumer Products, Sections 94508

**Stability:** The product is stable  
**Polymerization:** Hazardous polymerization does not occur  
**Hazardous decomposition products:** None reasonably foreseeable.

**Acute toxicity:** Corrosive Oral LD50 estimated to be between 2000 - 3000 mg/kg; Dermal LD50 estimated to be > 2000 mg/kg

**BRAVO Heavy Duty Low Odor Stripper**

**Component Information:** See Section 3

**Chronic toxicity:** None known

**Specific effects**

**Carcinogenic effects:** None known

**Mutagenic effects:** None known

**Reproductive toxicity:** None known

**Target organ effects:** None known

**Hazardous ingredients**

Ingredient(s)	CAS #	NTP	IARC	OSHA
Ethyl alcohol	64-17-5	X		X

**Environmental Information:** No data available

**Waste from residues / unused products:**

Undiluted product is regulated under environmental and transportation laws as a corrosive waste.

**DOT/TDG:** Please refer to the Bill of Lading/receiving documents for up to date shipping information

**International Inventories**

All components of this product are listed on the following inventories: U.S.A. (TSCA), Canada (DSL/NDSL).

**U.S. Regulations**

**California Proposition 65:** This product is not subject to the reporting requirements under California's Proposition 65

**STATE RIGHT TO KNOW**

Ingredient(s)	CAS #	MARTK:	NJRTK:	PARTK:	RIRTK:
Monoethanolamine	141-43-5	X	X	X	X
Water	7732-18-5	-	-	-	-
Ethyl alcohol	64-17-5	X	X	X	X
Sodium hydroxide	1310-73-2	X	X	X	X

**CERCLA/ SARA**

Ingredient(s)	CAS #	Weight %	CERCLA/SARA RQ (lbs)	Section 302 TPQ (lbs)	Section 313
Sodium hydroxide	1310-73-2	5 - 10%	1000		

**SARA 311/312 Hazard Categories**

**Immediate:** X  
**Delayed:** -  
**Fire:** -  
**Reactivity:** -  
**Sudden Release of Pressure:** -

**Canada**

**WHMIS hazard class:** E Corrosive material .



**Reason for revision:** Not applicable

**Prepared by:** NAPRAC

**Additional advice:** None

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**BRAVO Heavy Duty Low Odor Stripper**