



**PERSHY
CHEMICAL'S®**

Ind. e Com. de Produtos Químicos LTDA

BDO 2002

***DESENGRAXANTE/ DESMULSIFICANTE EMULSIVO, ATÓXICO
E BIODEGRADÁVEL***

***ATENDE AS ESPECIFICAÇÕES IBAMA PORT. NORM. Nº84 DE 15/10/96
TESTE DE BIODEGRADABILIDADE EMITIDO POR BIOAGRI LABORATÓRIOS
ECOLÓGICO***

APRESENTAÇÃO:

BDO 2002 A base de óleos vegetais e aditivos que atuam na tensão superficial e interfacial entre o orgânico e o inorgânico, fazendo com que o petróleo migre para superfície da solução auxiliando no enquadramento do TOG (Teor de Óleos e Graxas). Das ETE'S e SLOP TANK.

Atua quebrando a emulsão, lubrificando as paredes do oleoduto e alterando significativamente a reologia dos óleos de alta viscosidade. Atua como coadjuvante no tratamento da água oleosa proporcionando o TOG ideal, com a menor quantidade admissível de óleos e graxas na água.

INDICAÇÕES

O **BDO 2002** é especialmente recomendado para limpeza e remoção da poluição causada por derramamento de óleos em águas, limpeza de convés, docas, tanques, vasos e linhas de armazenamento de petróleo e na desobstrução de dutos de petróleo, o tratamento da água oleosa do "Slop Tank".

REAPROVEITAMENTO: Devido suas características de atuação o **BDO 2002** pode ser reaproveitado para outras operações de lavagem.

TEMPO DE OPERAÇÃO: Na Limpeza de tanques de armazenamento de Petróleo em plataformas offshore, **BDO 2002** reduz o tempo de operação por pelo menos 50%, abrindo novos espaços para outras operações. Pode ser usado puro (PPM) ou dissolvido em água. Proporção 1: 1 até 1: 10 partes de água

ATUAÇÃO BDO 2002: Devido as suas características químicas onde o ph é neutro, o **BDO 2002** não reage, sua formulação balanceada proporciona sua atração na reologia do óleo, na tensão interfacial entre o organismo (óleo) e o inorgânico (Rocha), na tensão superficial e na quebra da emulsão.



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CARACTERÍSTICAS FÍSICO-QUÍMICAS

1. ASPECTO -----	Líquido
2. COR-----	Opaco
3. PH -----	6,5/7,0
4. DENSIDADE A 20°C-----	0,930
5. VISCOSIDADE COPO FORD 2	N.A
6. TOXIDEZ-----	Atoxico
7. REAÇÃO CUTÂNEA-----	Não provoca dermatite
8. BIODEGRADABILIDADE-----	Total não agride o meio ambiente
9. CORROSÃO-----	Não corrosivo
10. PONTO DE FULGOR -----	Não inflamável

PRECAUÇÕES

Em caso de contato com os olhos lavar com bastante água corrente e procurar auxílio médico e em caso de ingestão tomar bastante água.

ESTOCAGEM

Manter o produto em local seco e arejado.

VALIDADE

Tempo de estocagem: 12 (doze) meses



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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	BDO 2002		
Product Code:	723-4		
Area of expertise:	Degreaser/ Emulsifier, Nontoxic and Biodegradable Demulsifier		
Company name:	Pershy Chemical's Indústria e Comércio de Produtos Químicos Ltda		
Address:	Rua Manuel Duarte, 2478 – CEP 24430-500 – Gradim – São Gonçalo - RJ		
Telephone:	(021) 2712-4484	Fax :	(021) 2723-5583
Telephone for emergencies:	0800-118270 (24 horas) -ABIQUIM – Pró-Química / FEEMA: 2295-6046 – 2270-6433		
E-mail:	pershy@pershy.com.br		

2. HAZARD IDENTIFICATION

Most important hazards:	Not applied.		
Product effects:			
Adverse effects on human health:	Inhalation: The ambient temperature has no odor. Ingestion: It can produce irritation in the mouth and throat for large amounts. Ingestion of a small amount has low toxicity. Skin: They do not cause skin irritation mainly by continuous and prolonged contact. Eyes: May cause irritation.		
Environmental effects:	Virtually none. Biodegradable product. This product uses biodegradable surfactant, in addition to hydrogenated paraffinic hydrocarbon (ecological solvent), which stands out for presenting a very low level of toxicity and aggressiveness to the environment.		
Physical and chemical hazards:	N/A.		
Perigos Específicos:	None of the components of BDO 2002 are not classified by IARC, NTP, OSHA, or ACGIH as a Carcinogen.		
Main symptoms:	N/A		
Classification of the chemical:	Biodegradable Product.		
Emergencies overview:	Isolate the spill area within a 50-meter radius in all directions. Keep people away. Stay away from low-lying areas, having the wind behind your back.		

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ready:	This product is a mixture of hydrogenated aliphatic hydrocarbon, terpene hydrocarbon, non-anionic surfactants.		
Chemical nature:	Hydrogenated hydrocarbon		
Ingredients that contribute to the danger:			
Item	Chemical or generic name	CAS Number	Concentration range (%)
01	Aliphatic hydrocarbons	64742-48-9	>60,0
02	Terpene hydrocarbon	977154-09-08	> 5,0
03	Mamona oil	8001-79-4	>7,0

4. FIRST AID MEASURES

First aid measures:	
Inhalation:	Remove the victim to the fresh air, keeping him lying still, and warm. Loosen clothes if the victim is not breathing, apply artificial respiration, or administer oxygen if breathing is difficult. Seek emergency medical assistance.
Skin contact:	Remove contaminated clothing. Do not touch or rub the affected parts. Wash with running water for 20 minutes. If any irritation occurs refer to the doctor.
Eye contact:	Do not rub. Remove contact lenses, if you have them. Wash with running water for at least 15 minutes. Refer to the ophthalmologist if any irritation or adverse effect occurs.
Ingestion:	Do not provoke vomiting. The act of vomiting poses a risk of aspiration of the product to the lungs (chemical pneumonitis). If the victim presents spontaneous vomiting by ingestion, keep his head on his side, avoiding aspiration. Give the victim, if conscious 3 and 4 glasses of cold water gradually to dilute the contents of the stomach. Seek medical attention immediately.



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What actions should be avoided:	Do not administer anything orally if the person is unconscious.
Notes for the doctor:	Symptomatic treatment. Gastric lavage should be applied cautiously. Do not provide mineral oil, as it may increase the absorption of hydrocarbons.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Water in the form of mist, CO ₂ , foam for hydrocarbons and chemical powder.
Unsuitable extinguishing media:	Full jet water.
Specific hazards:	Containers exposed to the heat of the fire should be cooled with water and removed from the site, if this can be done without risk.
Protection of firefighters:	Wear breathing protection devices independent of ambient air and protective clothing at high temperatures.

6. CONTROL MEASURES FOR SPILLAGE OR LEAKAGE

Personal precautions:	Wear PPE (glove, helmet, safety glasses). In case of accident keep downwind and inform the fire department, environmental agency, police and ABIQUIM (0800 118270).	
Removal of ignition sources:	Do not smoke and eliminate all hot and ignition sources.	
Dust control:	N.A.	
Prevention of inhalation, contact with the skin, eyes and mucous membranes:	Wear personal protective equipment (boots, safety goggles, waterproof gloves and adequate respiratory protection). Avoid inhalation of mists/vapors and direct contact with the product.	
Environmental precautions:	Contain the liquid to avoid soil or water contamination.	
Método para limpeza:	Collection in appropriate containers.	
Recovery:	Whenever possible, recover the product with non-flammable material (sawdust, straw or other absorbent material) and remove the contaminated soil by placing them in casks or containers for reuse or treatment. The product that falls into the water will stay on the surface, use containment barriers to prevent its spreading and recover the product.	
Disposition:	Do not dispose in common garbage. Incineration or co-processing. The recovered product can be forwarded to refining companies approved by the ANP. Dragging with water should take into account for further treatment of contaminated water.	
Prevention of secondary hazards:	Follow the procedures to enter confined areas: ASTM D-4276 e OSHA 29CFR 1910.146	

7. HANDLING AND STORAGE

Handling:	Handle the product in accordance with safety standards. Meets the NR 16 e 20	
Technical Measures:	The product must be handled in compliance with the standards and procedures of industrial hygiene and occupational safety in accordance with the legislation in force.	
Prevention of worker exposure:	Do not eat, drink or smoke in the work area. Do not enter areas where vapour concentration is suspected unless you have special equipment and there is an outside observer.	
Precautions for safe handling:	Use the individual safety equipment indicated in the section 8.	
Guidelines for safe handling:	Drums containing the product should be stored on wooden platforms or slats, sheltered from the sun, rains and away from flames, fire, sparks and heat sources.	
Storage:		
Appropriate Technical Measures:	Ventilated and dry place.	
Storage conditions:		
Appropriate:	Carbon steel tanks. Containers should be stored in identified and ventilated areas. Store in a suitable place with a containment basin to retain the product in case of leakage.	
To avoid:	Exposure to heat and inclement weather.	
Hazard signaling (NFPA Standard 704 – National Fire Protection Agency):	Health Hazards – 0 (Minimum Hazards) Flammability – 0 (Flammable when heated) Reactivity – 0 (No danger under normal conditions)	



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		Special recommendations - \diamond (Water can be used in case of fire)
	Incompatible products and materials:	N/A
	Safe packaging materials:	
	Recommended:	Metal drums, carbon steel cans and plastic packaging of HDPE (High Density Polyethylene) or PP (Polypropylene).
	Inadequate:	N.D.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Engineering control measures:	Maintain adequate ventilation with exposure limits below those determined.			
Specific control parameters:				
Occupational exposure limits (NR 15 – up to 48 hours/weeks):	CHEMICAL NAME		ppm	mg/m³
	N.E.		N.E.	N.E.
Biological indicators:	CHEMICAL AGENT	BIOLOGICAL MATERIAL	ANALYSIS	IBMP
	N.E.	N.E.	N.E.	N.E.
Other limits and values:	N.E.			
Recommended procedures for monitoring:	N.E.			
Appropriate personal protective equipment:				
Respiratory protection:	N.A.			
Hand protection:	Wear short or long barreled gloves of nitrile latex or PVC.			
Eye protection:	Wear safety glasses or wide-vision glasses.			
Skin and body protection:	Cotton garments, chemical-resistant apron and PVC or leather boots.			
Hygiene measures:	Do not smoke, drink or eat in places of handling, storage or transport of the product.			

9. PHYSICO-CHEMICAL PROPERTIES

Fitness:	Liquid
Forma:	Emulsion
Colour:	Opaque
Smell:	Characteristic
pH:	7,0 – 7,5 (Solução aquosa a 10%)
Density at 20/4 °C:	0,930 g/cm ³
Flash point, °C	Non-flammable.
Solubility in water:	Emulsion form.

10. STABILITY AND REACTIVITY

Specific conditions: Keep at room temperature, away from ignition sources.	
Instability:	Stable under normal conditions of use. Does not polymerize.
Conditions to avoid:	N. A
Incompatible materials or substances:	N. A
Dangerous decomposition products:	N. A



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11. TOXICOLOGICAL INFORMATION

Information according to the different routes of exposure:

Acute toxicity:	N.D.
Local effects:	Inhalation: N.A. Ingestion: In vomiting the main risk is chemical pneumonitis, pulmonary edema and hemorrhage resulting from aspiration into the airways. Skin: May cause dryness, irritations and dermatitis. Eyes: May cause eye irritation
Sensitization:	N.A.
Chronic toxicity:	Non-toxic.
Specific effects:	The product does not have mutagenic, teratogenic or carcinogenic characteristics.

12. ECOLOGICAL INFORMATION

Environmental effects, behaviors and product impacts:

Mobility:	Product forms emulsion with water, being easily transported.
Persistence/ Degradabilidade:	Biodegradable product.
Bioaccumulation:	Non-cumulative.
ecotoxicity:	Has low toxicity to aquatic lives.

13. TREATMENT AND DISPOSITION CONSIDERATIONS

Métodos de tratamento e disposição:

Product:	The disposal of the waste must be done in accordance with Federal or local legislation .
Product scraps:	Do not throw it into the sewer, into the earth or into any body or source of water. Incineration or <u>grounding</u> in accordance with federal or regional regulations.
Used packaging:	Do not use to store water or products for human consumption. Burn in an incinerator or put in a specific landfill.

14. TRANSPORTATION INFORMATION

National and international regulations: Product not considered dangerous for land transport.

Terrestrial in Brazil (ANTT resolution no. 420 of 12 February 2004):	UN Number:	N.E.
	Proper name for boarding:	N.E.
	Risk class:	N.E.
	Risk number:	N.E.
	Packing group:	N.E.

15. REGULATIONS

Risk and safety information as written on the label:

Risks:	N.A.
Keep away from children and animals.	
Do not reuse the product packaging for other purposes.	

16. OTHER INFORMATION

In places where chemical products are handled, workers' exposure should be monitored, according to the NR-9 Environmental Risk Prevention Program (PPRA). Employees who handle chemicals, in general, must be biologically monitored according to the PCMSO (Program for Medical Control of Occupational Health) of NR-7.

The information and recommendations contained in this publication were researched and compiled from reputable sources, from the MSDS of the suppliers and from the legislation applicable to the product.

This MSDS was prepared in accordance with NBR 14725 (Chemical Safety Information Sheet – MSDS) and the data refer to a specific product and may not be valid where that product is being used in combination with others. Pershy Chemical's with the data in this form, does not intend to establish absolute and definitive information about the product and its risks, but to subsidize with information, in the face of what is known, its employees and customers, for their individual protection, maintenance of operational continuity and preservation of the Environment.



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ACRONYMS USED:

N.A. = Does Not Apply

N.D. = Unavailable

N.R. = Not Relevant.

NR = Regulatory Standard

N.E. = Not specified

VM= Maximum Value.

LT – MP= Tolerance Limit – Weighted Average

ACGIH= American Conference of Governmental Industrial Hygienists

TLV –TWA = Threshold Limit Value – Time Weighted Average

TLV – STEL = Threshold Limit Value – Short-Term Exposure Limit

IARC = International Agency for Research on Cancer

PPRA = Environmental Risk Prevention Program

PCMSO = Occupational Health Medical Control Program

IMDG= International Maritime Dangerous Goods Code

IATA-DGR= International Air Transport Association – Dangerous Goods Regulation

IDLH = Immediately Dangerous to Life or Health

OSHA:= Occupational, Safety and Health Administration



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2. HAZARD IDENTIFICATION

Most important hazards:	Not applied.		
Product effects:			
Adverse effects on human health:	Inhalation: The ambient temperature has no odor. Ingestion: It can produce irritation in the mouth and throat for large amounts. Ingestion of a small amount has low toxicity. Skin: They do not cause skin irritation mainly by continuous and prolonged contact. Eyes: May cause irritation.		
Environmental effects:	Virtually none. Biodegradable product. This product uses biodegradable surfactant, in addition to hydrogenated paraffinic hydrocarbon (ecological solvent), which stands out for presenting a very low level of toxicity and aggressiveness to the environment.		
Physical and chemical hazards:	N/A.		
Perigos Específicos:	None of the components of BDO 2002 are not classified by IARC, NTP, OSHA, or ACGIH as a Carcinogen.		
Main symptoms:	N/A		
Classification of the chemical:	Biodegradable Product.		
Emergencies overview:	Isolate the spill area within a 50-meter radius in all directions. Keep people away. Stay away from low-lying areas, having the wind behind your back.		

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Ready:	This product is a mixture of hydrogenated aliphatic hydrocarbon, terpene hydrocarbon, non-anionic surfactants.		
Chemical nature:	Hydrogenated hydrocarbon		
Ingredients that contribute to the danger:			
Item	Chemical or generic name	CAS Number	Concentration range (%)
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4. FIRST AID MEASURES

First aid measures:	
Inhalation:	Remove the victim to the fresh air, keeping him lying still, and warm. Loosen clothes if the victim is not breathing, apply artificial respiration, or administer oxygen if breathing is difficult. Seek emergency medical assistance.
Skin contact:	Remove contaminated clothing. Do not touch or rub the affected parts. Wash with running water for 20 minutes. If any irritation occurs refer to the doctor.
Eye contact:	Do not rub. Remove contact lenses, if you have them. Wash with running water for at least 15 minutes. Refer to the ophthalmologist if any irritation or adverse effect occurs.
Ingestion:	Do not provoke vomiting. The act of vomiting poses a risk of aspiration of the product to the lungs (chemical pneumonitis). If the victim presents spontaneous vomiting by ingestion, keep his head on his side, avoiding aspiration. Give the victim, if conscious 3 and 4 glasses of cold water gradually to dilute the contents of the stomach. Seek medical attention immediately.



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What actions should be avoided:	Do not administer anything orally if the person is unconscious.
Notes for the doctor:	Symptomatic treatment. Gastric lavage should be applied cautiously. Do not provide mineral oil, as it may increase the absorption of hydrocarbons.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Water in the form of mist, CO ₂ , foam for hydrocarbons and chemical powder.
Unsuitable extinguishing media:	Full jet water.
Specific hazards:	Containers exposed to the heat of the fire should be cooled with water and removed from the site, if this can be done without risk.
Protection of firefighters:	Wear breathing protection devices independent of ambient air and protective clothing at high temperatures.

6. CONTROL MEASURES FOR SPILLAGE OR LEAKAGE

Personal precautions:	Wear PPE (glove, helmet, safety glasses). In case of accident keep downwind and inform the fire department, environmental agency, police and ABIQUIM (0800 118270).	
Removal of ignition sources:	Do not smoke and eliminate all hot and ignition sources.	
Dust control:	N.A.	
Prevention of inhalation, contact with the skin, eyes and mucous membranes:	Wear personal protective equipment (boots, safety goggles, waterproof gloves and adequate respiratory protection). Avoid inhalation of mists/vapors and direct contact with the product.	
Environmental precautions:	Contain the liquid to avoid soil or water contamination.	
Método para limpeza:	Collection in appropriate containers.	
Recovery:	Whenever possible, recover the product with non-flammable material (sawdust, straw or other absorbent material) and remove the contaminated soil by placing them in casks or containers for reuse or treatment. The product that falls into the water will stay on the surface, use containment barriers to prevent its spreading and recover the product.	
Disposition:	Do not dispose in common garbage. Incineration or co-processing. The recovered product can be forwarded to refining companies approved by the ANP. Dragging with water should take into account for further treatment of contaminated water.	
Prevention of secondary hazards:	Follow the procedures to enter confined areas: ASTM D-4276 e OSHA 29CFR 1910.146	

7. HANDLING AND STORAGE

Handling:	Handle the product in accordance with safety standards. Meets the NR 16 e 20	
Technical Measures:	The product must be handled in compliance with the standards and procedures of industrial hygiene and occupational safety in accordance with the legislation in force.	
Prevention of worker exposure:	Do not eat, drink or smoke in the work area. Do not enter areas where vapour concentration is suspected unless you have special equipment and there is an outside observer.	
Precautions for safe handling:	Use the individual safety equipment indicated in the section 8.	
Guidelines for safe handling:	Drums containing the product should be stored on wooden platforms or slats, sheltered from the sun, rains and away from flames, fire, sparks and heat sources.	
Storage:		
Appropriate Technical Measures:	Ventilated and dry place.	
Storage conditions:		
Appropriate:	Carbon steel tanks. Containers should be stored in identified and ventilated areas. Store in a suitable place with a containment basin to retain the product in case of leakage.	
To avoid:	Exposure to heat and inclement weather.	
Hazard signaling (NFPA Standard 704 – National Fire Protection Agency):	Health Hazards – 0 (Minimum Hazards) Flammability – 0 (Flammable when heated) Reactivity – 0 (No danger under normal conditions)	



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		Special recommendations - \diamond (Water can be used in case of fire)
	Incompatible products and materials:	N/A
	Safe packaging materials:	
	Recommended:	Metal drums, carbon steel cans and plastic packaging of HDPE (High Density Polyethylene) or PP (Polypropylene).
	Inadequate:	N.D.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Engineering control measures:	Maintain adequate ventilation with exposure limits below those determined.			
Specific control parameters:				
Occupational exposure limits (NR 15 – up to 48 hours/weeks):	CHEMICAL NAME		ppm	mg/m³
	N.E.		N.E.	N.E.
Biological indicators:	CHEMICAL AGENT	BIOLOGICAL MATERIAL	ANALYSIS	IBMP
	N.E.	N.E.	N.E.	N.E.
Other limits and values:	N.E.			
Recommended procedures for monitoring:	N.E.			
Appropriate personal protective equipment:				
Respiratory protection:	N.A.			
Hand protection:	Wear short or long barreled gloves of nitrile latex or PVC.			
Eye protection:	Wear safety glasses or wide-vision glasses.			
Skin and body protection:	Cotton garments, chemical-resistant apron and PVC or leather boots.			
Hygiene measures:	Do not smoke, drink or eat in places of handling, storage or transport of the product.			

9. PHYSICO-CHEMICAL PROPERTIES

Fitness:	Liquid
Forma:	Emulsion
Colour:	Opaque
Smell:	Characteristic
pH:	7,0 – 7,5 (Solução aquosa a 10%)
Density at 20/4 °C:	0,930 g/cm ³
Flash point, °C	Non-flammable.
Solubility in water:	Emulsion form.

10. STABILITY AND REACTIVITY

Specific conditions: Keep at room temperature, away from ignition sources.	
Instability:	Stable under normal conditions of use. Does not polymerize.
Conditions to avoid:	N. A
Incompatible materials or substances:	N. A
Dangerous decomposition products:	N. A



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11. TOXICOLOGICAL INFORMATION

Information according to the different routes of exposure:

Acute toxicity:	N.D.
Local effects:	Inhalation: N.A. Ingestion: In vomiting the main risk is chemical pneumonitis, pulmonary edema and hemorrhage resulting from aspiration into the airways. Skin: May cause dryness, irritations and dermatitis. Eyes: May cause eye irritation
Sensitization:	N.A.
Chronic toxicity:	Non-toxic.
Specific effects:	The product does not have mutagenic, teratogenic or carcinogenic characteristics.

12. ECOLOGICAL INFORMATION

Environmental effects, behaviors and product impacts:

Mobility:	Product forms emulsion with water, being easily transported.
Persistence/ Degradabilidade:	Biodegradable product.
Bioaccumulation:	Non-cumulative.
ecotoxicity:	Has low toxicity to aquatic lives.

13. TREATMENT AND DISPOSITION CONSIDERATIONS

Métodos de tratamento e disposição:

Product:	The disposal of the waste must be done in accordance with Federal or local legislation .
Product scraps:	Do not throw it into the sewer, into the earth or into any body or source of water. Incineration or <u>grounding</u> in accordance with federal or regional regulations.
Used packaging:	Do not use to store water or products for human consumption. Burn in an incinerator or put in a specific landfill.

14. TRANSPORTATION INFORMATION

National and international regulations: Product not considered dangerous for land transport.

Terrestrial in Brazil (ANTT resolution no. 420 of 12 February 2004):	UN Number:	N.E.
	Proper name for boarding:	N.E.
	Risk class:	N.E.
	Risk number:	N.E.
	Packing group:	N.E.

15. REGULATIONS

Risk and safety information as written on the label:

Risks:	N.A.
Keep away from children and animals.	
Do not reuse the product packaging for other purposes.	

16. OTHER INFORMATION

In places where chemical products are handled, workers' exposure should be monitored, according to the NR-9 Environmental Risk Prevention Program (PPRA). Employees who handle chemicals, in general, must be biologically monitored according to the PCMSO (Program for Medical Control of Occupational Health) of NR-7.

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ACRONYMS USED:

N.A. = Does Not Apply

N.D. = Unavailable

N.R. = Not Relevant.

NR = Regulatory Standard

N.E. = Not specified

VM= Maximum Value.

LT – MP= Tolerance Limit – Weighted Average

ACGIH= American Conference of Governmental Industrial Hygienists

TLV –TWA = Threshold Limit Value – Time Weighted Average

TLV – STEL = Threshold Limit Value – Short-Term Exposure Limit

IARC = International Agency for Research on Cancer

PPRA = Environmental Risk Prevention Program

PCMSO = Occupational Health Medical Control Program

IMDG= International Maritime Dangerous Goods Code

IATA-DGR= International Air Transport Association – Dangerous Goods Regulation

IDLH = Immediately Dangerous to Life or Health

OSHA:= Occupational, Safety and Health Administration



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BDO 2002

***DEGREASER/ EMULSIVE DESMULSIFIER, NON-TOXIC AND
BIODEGRADABLE***

*ATENDE AS ESPECIFICAÇÕES IBAMA PORT. NORM. N°84 DE 15/10/96
TESTE DE BIODEGRADABILIDADE EMITIDO POR BIOAGRI LABORATÓRIOS*

PRESENTATION:

BDO 2002 - It is made of a combination of vegetable oils and chemical additives that acts on the superficial and interfacial tensions between the organic and inorganic compounds. As result, the oil will float to the surface of the solution, which will result in acceptable levels of oils and greases in effluent treatment stations and SLOP tanks.

It breaks the oil-water emulsion, lubricates the internal walls of the ducts and changes significantly the rheology of high viscosity oils.

USAGE

BDO 2002 is specifically recommended to clean and remove pollution due to oil leakages in water, cleaning tanks, vessels, docks, and piping in the oil industry. It can also be used to treat oil-contaminated water in slop tanks and water treatment stations. Another use is to extract more oil in mature oil fields as part of Extended Oil Recovery (EOR) techniques.

RE-USE: Due to its characteristics, **BDO 2002** can be recycled after usage and re-utilized in other cleaning operations.

TURN AROUND TIME REDUCTION: In field tests (offshore platforms and oil pipelines), **BDO 2002** was able to reduce in 50% the maintenance downtime. Can be used undiluted or mixed with water in a up to 1:10 proportion.

ACTUATION: Due to its chemical characteristics and neutral pH, **BDO 2002** does not react. Its balanced formula acts in the interfacial and superficial tensions between organic (oil) and inorganic (rock/metal surfaces), breaking the emulsion and easing the separation between oil and water.



**PERSHY
CHEMICAL'S®**

Ind. e Com. de Produtos Químicos LTDA

TECHNICAL SPECIFICATIONS

1. ASPECT -----	Liquid
2. COLOR-----	Opaque
3. PH -----	6,5/7,0
4. DENSITY AT 20°C-----	0,930
5. VISCOSITY -----	N.A
6. TOXIDITY-----	Non-toxic
7. SKIN REACTION-----	Do not cause dermatitis
8. BIODEGRADABILITY-----	Fully biodegradable
9. CORROSION-----	Noncorrosive
10. FULGOR POINT-----	Nonflammable

PRECAUTIONS

In case of eye contact, please rinse the eyes with water. In case of ingestion, drink plenty of water. In both situations, look for medical assistance.

STORAGE

Product must be kept in a dry and ventilated area.

EXPIRY DATE:

Can be stored during twelve (12) months, under proper conditions.