

## BIO FOR N



## SAFETY DATA SHEET

## SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier**

Product name : BIO FOR N

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Fire fighting foam concentrate

**1.3. Details of the supplier of the safety data sheet**

Registered company name : BIO-EX.

Address : 5 chemin de Clape-Loup .69280.Sainte-Consorce.FRANCE.

Telephone : +33 (0)4.74.70.23.81. Fax : +33 (0)4.74.70.23.94.

contact@bio-ex.fr

**1.4. Emergency telephone number : +33 (0)1 45 42 59 59.**Association/Organisation : France: INRS / ORFILA <http://www.centres-antipoison.net>.**Other emergency numbers**

CHEMTREC 800.424.9300

## SECTION 2 : HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture****HCS compliant.**

Skin irritation, Category 2 (Skin Irrit. 2).

Eye irritation, Category 2A (Eye Irrit. 2A).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

**2.2. Label elements****HCS compliant.**

Hazard pictograms :



GHS07

Signal Word :

WARNING

Hazard statements :

H315

Causes skin irritation.

H319

Causes serious eye irritation.

Precautionary statements - Prevention :

P280

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/ ...

Precautionary statements - Response :

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313

If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

**BIO FOR N****SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures****Composition :**

Identification	Classification HCS	Nota	%
INDEX: 603-096-00-8 CAS: 112-34-5 EC: 203-961-6 REACH: 01-2119475104-44  2-(2-BUTOXYETHOXY)ETHANOL ALKENESULFONATE	GHS07 Wng Eye Irrit. 2, H319	[1]	10 <= x % < 25
ALKYLSULFATE	GHS07, GHS05 Dgr Skin Irrit. 2, H315 Eye Dam. 1, H318		2.5 <= x % < 10
ALKYL SULFATE	GHS07, GHS05 Dgr Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318		2.5 <= x % < 10
ALKYL SULFATE	GHS07, GHS05 Dgr Skin Irrit. 2, H315 Eye Dam. 1, H318		2.5 <= x % < 10
CAS: 112-53-8 EC: 203-982-0 REACH: 01-2119485976-15  DODECAN-1-OL	GHS07 Wng Eye Irrit. 2, H319	[1]	0 <= x % < 2.5

**Information on ingredients :**

(Full text of H-phrases: see section 16)

[1] Substance for which maximum workplace exposure limits are available.

**SECTION 4 : FIRST AID MEASURES**

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

**4.1. Description of first aid measures****In the event of splashes or contact with eyes :**

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

**In the event of splashes or contact with skin :**

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

**In the event of swallowing :**

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Seek medical attention immediately, showing the label.

**4.2. Most important symptoms and effects, both acute and delayed**

No data available.

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available.

**BIO FOR N****SECTION 5 : FIREFIGHTING MEASURES**

Non-flammable.

**5.1. Extinguishing media**

Firefighting foam concentrate not flammable

**5.2. Special hazards arising from the substance or mixture**

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**5.3. Advice for firefighters**

No data available.

**SECTION 6 : ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

**For non first aid worker**

Avoid any contact with the skin and eyes.

**For first aid worker**

First aid workers will be equipped with suitable personal protective equipment (See section 8).

**6.2. Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

**6.3. Methods and material for containment and cleaning up**

If the ground is contaminated, once the product has been recovered by sponging with an inert and non-combustible absorbent material, wash the contaminated area in plenty of water.

**6.4. Reference to other sections**

No data available.

**SECTION 7 : HANDLING AND STORAGE**

Requirements relating to storage premises apply to all facilities where the mixture is handled.

**7.1. Precautions for safe handling**

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

**Fire prevention :**

Prevent access by unauthorised personnel.

**Recommended equipment and procedures :**

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid skin and eye contact with this mixture.

**Prohibited equipment and procedures :**

No smoking, eating or drinking in areas where the mixture is used.

**7.2. Conditions for safe storage, including any incompatibilities**

No data available.

**Packaging**

Always keep in packaging made of an identical material to the original.

Recommended types of packaging :

Product in bulk : stainless steel, polyester or mild steel protected with epoxy or polyurethane coating. Tanks in PE, PP

**BIO FOR N**

Unsuitable packaging materials :

Mild steel

**7.3. Specific end use(s)**

No data available.

**SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Occupational exposure limits :**

- European Union (2022/431, 2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m <sup>3</sup>	VME-ppm	VLE-mg/m <sup>3</sup>	VLE-ppm	Notes
112-34-5	67.5	10	101.2	15	-

- Germany - AGW (BAuA - TRGS 900, 02/2022) :

CAS	VME :	VME :	Excess	Notes
112-34-5		10 ppm 67 mg/m <sup>3</sup>		1.5 (I)
112-53-8		20 ppm 155 mg/m <sup>3</sup>		1(I)

- France (INRS - Outils 65 / 2021-1849, 2021-1763, decree of 09/12/2021) :

CAS	VME-ppm	VME-mg/m <sup>3</sup>	VLE-ppm	VLE-mg/m <sup>3</sup>	Notes	TMP No
112-34-5	10	67.5	15	101.2	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
112-34-5	10 ppm 67.5 mg/m <sup>3</sup>	15 ppm 101.2 mg/m <sup>3</sup>			

**8.2. Exposure controls****Personal protection measures, such as personal protective equipment**

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

**- Eye / face protection**

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

**- Hand protection**

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVC (polyvinyl chloride)

Recommended properties :

Thickness min: 0.35mm - minimum break-up time: 2 h

**BIO FOR N****- Body protection**

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

**SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

No data available.

**Physical state**

Physical state : Fluid liquid.

**Colour**

Unspecified

**Odour**

Odour threshold : Not stated.

**Melting point**

Melting point/melting range : Not specified.

**Freezing point**

Freezing point / Freezing range : Not stated.

**Boiling point or initial boiling point and boiling range**

Boiling point/boiling range : Not specified.

**Flammability**

Flammability (solid, gas) : Not stated.

**Lower and upper explosion limit**

Explosive properties, lower explosivity limit (%) Not stated.

:

Explosive properties, upper explosivity limit (%) Not stated.

:

**Flash point**

Flash point interval : Not relevant.

**Auto-ignition temperature**

Self-ignition temperature : Not specified.

**Decomposition temperature**

Decomposition point/decomposition range : Not specified.

**pH**

pH : Not stated.

Neutral.

pH (aqueous solution) : Not stated.

**Kinematic viscosity**

Viscosity : Not stated.

**Solubility**

Water solubility : Soluble.

Fat solubility : Not stated.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient: n-octanol/water : Not stated.

**Vapour pressure**

Vapour pressure (50°C) : Not relevant.

**BIO FOR N****Density and/or relative density**

Density : &gt; 1

**Relative vapour density**

Vapour density : Not stated.

**9.2. Other information**

No data available.

**9.2.1. Information with regard to physical hazard classes**

No data available.

**9.2.2. Other safety characteristics**

No data available.

**SECTION 10 : STABILITY AND REACTIVITY****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of hazardous reactions**

None expected in standard use

**10.4. Conditions to avoid**

No data available.

**10.5. Incompatible materials**

No data available.

**10.6. Hazardous decomposition products**

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

**SECTION 11 : TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

**11.1.1. Substances****Skin corrosion/skin irritation :**

ALKENESULFONATE

Corrosivity : No observed effect.

**11.1.2. Mixture**

No toxicological data available for the mixture.

**11.2. Information on other hazards****SECTION 12 : ECOLOGICAL INFORMATION**

The product must not be allowed to run into drains or waterways.

**12.1. Toxicity****12.1.2. Mixtures****12.2. Persistence and degradability****12.2.1. Substances**

DODECAN-1-OL (CAS: 112-53-8)

Biodegradability : Rapidly degradable.

ALKYL SULFATE

**BIO FOR N**

Biodegradability : Rapidly degradable.

ALKENESULFONATE  
Biodegradability : Rapidly degradable.

**12.2.2. Mixtures**

Biodegradability : Rapidly degradable.  
DBO5/DCO >= 0.5

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

No data available.

**12.6. Endocrine disrupting properties**

No data available.

**12.7. Other adverse effects**

No data available.

**SECTION 13 : DISPOSAL CONSIDERATIONS**

The appropriate waste management of the mixture and/or its container must be determined in accordance with local regulations.

**13.1. Waste treatment methods**

Do not pour into drains or waterways.

**Waste :**

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

**Soiled packaging :**

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

**SECTION 14 : TRANSPORT INFORMATION**

Exempt from transport classification and labelling.

**14.1. UN number**

-

**14.2. UN proper shipping name**

-

**14.3. Transport hazard class(es)**

-

**14.4. Packing group**

-

**14.5. Environmental hazards**

-

**14.6. Special precautions for user**

-

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## 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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## SECTION 15 : REGULATORY INFORMATION

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

The following regulations have been used:

- OSHA Hazard Communication Standard 29 CFR 1910.1200

**Container information:**

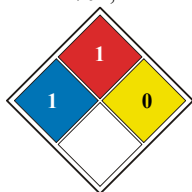
No data available.

**Particular provisions :**

No data available.

**- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :**

NFPA 704, Labelling: Health=1 Inflammability=1 Instability/Reactivity=0 Specific Risk=none

**- Clean Water Act : Toxic Pollutants (CWA 307A)**

Unlisted.

**- Clean Water Act : Hazardous Substances (CWA 311)**

Unlisted.

**- Clean Water Act : Hazardous Substances (CWA 304b)**

Unlisted.

**- Clean Water Act : Priority Pollutants (CWA Priority)**

Unlisted.

**- Clean Air Act : Hazardous Air Pollutants (CAA 112(b) HAP (188))**

Unlisted.

**- Clean Air Act : Organic Hazardous Air Pollutants National Emission Standards (CAA 112(b) HON (387))**

CAS	Name
112-34-5	2-(2-BUTOXYETHOXY)ETHANOL

**- Clean Air Act : Protection of Stratospheric Ozone (CAA 602)**

Unlisted.

**- SARA 110**

Unlisted.

**- SARA 302/304**

Unlisted.

**- SARA 313**

Unlisted.

**- California proposition 65 : Chemicals known to the state to cause cancer or reproductive toxicity**

Unlisted.

**- Massachusetts : Right to Know**

Unlisted.

**- New Jersey : Right to Know**

Unlisted.

**- Pennsylvania : Hazardous Substance**

Unlisted.

**- Rhode Island : Hazardous substance list**

Unlisted.



**BIO FOR N****- TSCA (Toxic Substances Control Act) - USA**

CAS	Name
112-53-8	DODECAN-1-OL
112-34-5	2-(2-BUTOXYETHOXY)ETHANOL

**15.2. Chemical safety assessment**

No data available.

**SECTION 16 : OTHER INFORMATION**

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

**Abbreviations and acronyms :**

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

HCS : Hazard Communication standard (OSHA).