

1. PRODUCT/PREPARATION/COMPANYTrade name: **Termi-DNA-Tor**Company: Biotools, B & M Labs, S.A.
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Product Number: 22.001, 22.002

Emergency number: Please contact a toxicology information center (national toxicological information service phone number: 91 562 04 20)

1.1 Relevant identified uses of the substance or mixtureDisinfection of surfaces
For further information on product indication, please see the label.**2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****In compliance with EC regulation No. 1272/2008 and its amendments.**Flammable liquid, Category 2 (Flam. Liq. 2, H225).
Eye irritation, category 2 (Eye Irrit. 2, H319).
Hazardous to the aquatic environment – Chronic hazard, category 3 (Aquatic Chronic 3, H412)**2.2 Label elements****In compliance with EC regulation No. 1272/2008 and its amendments.**

Hazard pictograms:



GHS07



GHS02

Signal Word:

DANGER

Hazard Statements:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements – General:

P102 Keep out of reach of children

Precautionary statements – Prevention:

P210 Keep away from sparks and open flames

P261 Avoid breathing product from spraying

P273 Avoid release to the environment

P280 Wear protective gloves

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.

Precautionary statements – Storage:

P403 Store in a well ventilated place

Precautionary statements – Disposal:

P501 Dispose of product and its container as hazardous waste.

2.3 Other hazardsThe mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \geq 0.1% published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>
No other hazard identified in the current state of knowledge.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Composition:

Identification	(EC) 1272/2008	Note	%
CAS: 64 - 17 - 5 EC: 200 - 578 - 6 REACH: 01 - 2119457610 – 43 ETHYL ALCOHOL	GHS07, GHS02 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1]	50 <=x % < 100
INDEX: 603 - 117 - 00 - 0 CAS: 67 - 63 - 0 EC: 200 - 661 - 7 REACH: 01 - 2119457558 - 25 PROPAN-2-OL	GHS02, GHS07 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1]	0 <=x % < 2.5
CAS: 94667 – 33 – 1 EC: 619 – 057 – 3 REACH: 01 – 2119950327 – 36 N,N-DIDECYL-N-METHYL- POLY(OXYETHYL) AMMONIUM PROPIONATE	GHS07, GHS05, GHS09 Dgr Acute Tox. 4, H302 Skin Corr. 1B, H314 STOT SE 3, H335 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 10		0 <=x % < 2.5

Information on ingredients:

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

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 exposure by inhalation:

Move the person away from the place of exposure and take him/her outside.

In the event of splashes or contact with eyes:

If applicable, remove contact lenses.
Wash thoroughly with soft clean water for 15 minutes, holding the eyelids open.
Take care not to introduce rinsing water in the undamaged eye.
Additional treatment to be provided immediately in an eye clinic or by an ophthalmologist. Show this container or label.
Continue rinsing until medical advice is obtained.

In the event of splashes or contact with skin:

Remove all contaminated or stained clothing immediately. Do not use them again until they have been decontaminated.
Rinse immediately and thoroughly with water.
In the event of skin irritation, seek medical advice. Show this container or label.

In the event of swallowing:

Rinse out the mouth, do not allow to drink, do not induce vomiting. Calm the person down and transfer immediately to hospital or doctor. Show the label to the doctor.

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

See section 11 (Toxicological Information)

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

Refer to the recommendation of the doctor

5. FIREFIGHTING MEASURES

Flammable
Spray water to cool down surfaces exposed to fire and to protect the personnel.
Move oxidising products away from the fire
Move any flammable materials away from the fire.

5.1 Extinguishing media**Suitable methods of extinction**

Prevent the effluent of fire-fighting measures from entering drains or waterways
Use powder or foam extinguishers.
Special foams for polar liquids, powders and carbon dioxide.

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 breath in smoke.

5.2 Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.
Full protective suit.

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

Consult the safety measures listed under headings 7 and 8
Keep away any unprotected person
Move all flammable sources out of danger and keep them away from the scene.
Eliminate any possible source of ignition and ventilate the premises.

6.2 Environmental precautions

Contain and control the leaks or spills with no combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures.
Use drums to dispose of collected waste in compliance with current regulations (see section 13).
Do not get rid in natural spaces (waterways, ground and vegetations...)

6.3 Methods and material for containment and cleaning up

Absorb any spilled product with absorbent non-combustible materials and sweep away or remove with a shovel. Put any waste in drums for disposal. Do not mix any other waste. Wash the contaminated surface thoroughly with water.
Do not collect the product for re-use.

6.4 Reference to other sections

Disposal considerations: See section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Product for external use – do not swallow.
Avoid all contact with skin or eyes
Handle in accordance with user instructions on label
Do not breathe in the aerosols and spray mists.
Handle at temperature not exceeding 45°C
Handle in a well ventilated place (10 to 15 air changes per hour)
Use in premises with a source-capture ventilation system, especially for transfer operations involving large quantities.

Fire prevention

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.
Keep packages tightly closed and away from sources of heat, sparks and naked flames.
Do not use tools which may produce sparks. Do not smoke.
Prevent access by unauthorised personnel.
Keep away from flammable materials

Recommended equipment and procedures:

For personal protection, see section 8.
Observe precautions stated on label and also industrial safety regulations.
Avoid eye contact with this mixture.
Ensure room is well ventilated.
Water source nearby.

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

Keep the container tightly closed
Keep in the original container only, in a cool and well-ventilated place, away from all sources of ignition, heat and direct sunlight.
Recommended storage temperature: from +5°C to +25°C
Do not use after the expiry date mentioned on the packaging.
Keep out of the reach of children.

7.3 Specific end use(s)

For professional use only
Refer to paragraph 1 for product indication

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this chapter refers to the product specifically described in this document. If the product is handled and/or exposed simultaneously with other chemical agents, these must be taken into consideration when choosing personal safety equipment.
The Exposure Threshold Limit Value and the Average Exposure Value given below are quoted by the CAS number of the substance. Paragraph 3 details the chemical name corresponding to the CAS number.

8.1 Control parameters

Occupational exposure limits:

-Germany – AGW (BAuA – TRGS 900, 21/06/2010):

CAS	VME:	VME:	Excess	Notes
64-17-5		500 ppm 960 mg/m ³		2(II)
67-63-0		200 ppm 500 mg/m ³		2(II)

-Belgium (Order of 19/05/2009, 2010):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	1000 ppm 1907 mg/m ³				
67-63-0	200 ppm 500 mg/m ³	400 ppm 1000 mg/m ³			

-France (INRS – ED984:2012):

CAS	VME-ppm	VME-mg/m ³	VLE-ppm	VLE-mg/m ³	Notes:	TMP No:
64-17-5	1000	1900	5000	9500	-	84
67-63-0	-	-	400	980	-	84

-Spain (Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT), Mayo 2010):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	1000 ppm 1910 mg/m ³				
67-63-0	400 ppm 998 mg/m ³	500 ppm 1250 mg/m ³			

-Poland (2014):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	1900 mg/m ³				
67-63-0	900 mg/m ³	1200 mg/m ³			

-Czech Republic (Regulation No. 361/2007)

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	1000 mg/m ³	3000 mg/m ³			
67-63-0	500 mg/m ³	1000 mg/m ³		I	

-Slovakia (Regulation No. 300/2007)

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	500 ppm 960 mg/m ³	1920 mg/m ³			
67-63-0	200 ppm 500 mg/m ³	1000 mg/m ³			

-Switzerland (SUVA 2015):

CAS	VME	VLE	Valeur plafond	Notations
64-17-5	500 ppm 960 mg/m ³	1000 ppm 1920 mg/m ³		SSC
67-63-0	200 ppm 500 mg/m ³	400 ppm 1000 mg/m ³		B SSC

-UK/WEL (Workplace exposure limits, EH40/2005, 2007):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
64-17-5	1000 ppm 1920 mg/m ³				
67-63-0	400 ppm 999 mg/m ³	500 ppm 1250mg/m ³			

8.2 Exposure controls

Suitable technical inspections

Ensure the rooms are well-ventilated. Atmospheric concentrations at the workplace must not exceed the limit values given for normal conditions of use.

Personal protection measures, such as personal protective equipment

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 personnel safety goggles with side protection
Provide eye washes in the work area
If necessary, the nearest water supply

Hand protection

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.
Neoprene or nitrile gloves are particularly recommended.
Gloves must be replaced immediately if they show signs of wear and tear.

Body protection

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.

Respiratory protection

In case of insufficient ventilation, with the risk of exceeding the TLVs (Treshold Limit Values)/TWA, wear suitable breathing apparatus.
Particularly breathing apparatus, A2P2 type.

9. PHYSICAL AND CHEMICAL PROPERTIES**9.1 Information on basic physical and chemical properties****General information**

Physical state:	Fluid liquid
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Important health, safety and environmental information

pH	5.80 Neutral
Boiling point/boiling range:	>35°C
Flash point:	21.50°C
Vapour pressure (50°C):	Not relevant
Density:	+/- 0.9
Water solubility:	Soluble
Melting point/melting range:	Not specified
Self-ignition temperature:	Not specified
Decomposition point/decomposition range:	Not specified

Other information

Odour:	Perfumed
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The pH stated in section 9.1 is an indicative value. Below the minimum and maximum product pH:

Ph pure product:	5,0 - 6,5
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10. STABILITY AND REACTIVITY**10.1 Reactivity**

No hazardous reaction if the instructions/indications for storage and handling are respected.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

See point 10.1 and 10.2

10.4 Conditions to avoid

Do not spray onto a flame or any other incandescent objects
Avoid exposure to heat

10.5 Incompatible materials

Do not mix with other products
Any material sensitive to alcohols

10.6 Hazardous decomposition products

At high temperatures, dangerous decomposition products may be produced, such as fumes, carbon dioxide and carbon monoxide, nitrogen oxide.

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****11.1.1 Substances**

Not specified

11.1.2 Mixture

The toxicological data of the mixture (resulting from studies or in accordance with conventional methods) are outlined Below.

Acute toxicity

Acute toxicity estimate (ATE)*:

Oral ATE >2000mg/kg

*According to the method of calculation described in the CLP regulation (Classification, Labelling, Packaging) Part 3 Chapter 3.1 based on the data of the different components presents in the product.

Ingestion may lead to irritation of the digestive system, abdominal pain, headaches and nausea.

Skin corrosion/skin irritation:

Possibility of itching with light to moderate local redness

Serious damage to eyes/eye irritation

Ocular irritation: notably redness of the conjunctiva and lacrimation

Respiratory or skin sensitisation:

Product not classified in this hazard category.

Germ cell mutagenicity:

Product not classified in this hazard category.

Carcinogenicity:

Product not classified in this hazard category.

Reproductive toxicant:

Product not classified in this hazard category.

Specific target organ systemic toxicity – single exposure:

Product not classified in this hazard category

Specific target organ systemic toxicity – repeated exposure:

Product not classified in this hazard category.

Aspiration hazard:

Product not classified in this hazard category.

12. ECOLOGICAL INFORMATION

Following information is based on data from the compounds.
Avoid any product release into waterways.

12.1. Toxicity**12.1.2. Mixtures**

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available

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 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

The packages must not be reused.

Do not pour into waterways.

13.1 Waste treatment methods**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, preferably via a certified collector or company.

Soiled packaging:

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

Give to a certified disposal contractor.

Codes of wastes (Decision 2001/573/EC, Directive 2006/12/EEC, Directive 94/31/EEC on hazardous waste):

18 01 06 * chemicals consisting of or containing dangerous substances

For information:

The waste code is given for indicative purposes.

The waste code must be determined by the user, according to the application of the product.

18 = Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care).

14. TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 – IMDG 2014 – ICAO/IATA 2016).

14.1 UN number

1170

14.2 UN proper shipping name

UN1170=ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)

14.3 Transport hazard class(es)

- Classification:



3

14.4. Packing group

II

14.5 environmental hazards

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14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	II	3	33	1L	144 601	E2	2	D/E
IMDG	Class	2ºLabel	Pack gr.	LQ	EMS	Provis.	EQ			
	3	-	II	1L	F-E,S-D	144	E2			
IATA	Class	2ºLabel	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	3	-	II	353	5L	364	60L	A3 A58 A180	E2	
	3	-	II	Y341	1L	-	-	A3 A58 A180	E2	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

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

Not applicable

15. REGULATORY INFORMATION

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

-Classification and labelling information included in point 2:

The following regulations have been used:

Regulation (EC) No. 1272/2008 and its amendments.

15.2 Chemical safety assessment

Information from the chemical safety assessment of substances present in the product is included in the appropriate points of this safety data sheet, whenever necessary.

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.

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.

It is recommended that the information contained in this safety data sheet is provided to the users, if necessary in an appropriate form.

This information relates to the specifically designated product and may not be valid in combination with any another product.

The product must not be used for applications other than those specified in point 1.1 without having first obtained written handling instructions.

Wording of the phrases mentioned in point 3:

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Abbreviations:

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

GHS02: Flame

GHS07: Exclamation mark

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