

**SECTION I – PRODUCT AND COMPANY IDENTIFICATION**

Product name: **NOVOC® DS3700**

Product Identifier:

Relevant identified uses: Descaler.

**BOLLAND Y CÍA. S.A.U.**

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**SECTION II – HAZARDS IDENTIFICATION**

**Classification according to Globally Harmonized System.**

Hazard pictogram(s):



Skin irritation (Category 2) – Eye irritation (Category 2A)  
 Reproductive toxicity (Category 1B)  
 Specific target organ toxicity – single exposure (Category 3)  
 Short-term (acute) aquatic hazard (Category 3)

**Signal word: DANGER**

**Hazard statements:**

H315 - Causes skin irritation.  
 H317 - May cause an allergic skin reaction.  
 H335 - May cause respiratory irritation.  
 H360 - May damage fertility or the unborn child.  
 H402 - Harmful to aquatic life.

**Precautionary statements:**

P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P261 - Avoid breathing dust, fume, gas, mist, vapours and spray.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves.  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P308 + P313 - IF EXPOSED OR CONCERNED: Get medical advice or attention.  
 P332 + P313 - IF SKIN IRRITATION OCCURS: Get medical advice or attention.  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
 P405 - Store locked up.

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<b>Replace:</b>	-		
<b>Created:</b>	CIQUIME	<b>Revised:</b>	BOLLAND Y CÍA. S.A.U.

**Additional information**

None.

**SECTION III - COMPOSITION / INFORMATION ON INGREDIENTS**

HAZARDOUS INGREDIENTS	% WEIGHT	CLASSIFICATION
Aminoalkyl amide, acid salt	21	Skin Irrit. 2; Eye Damage 1; STOT Single Exp. 3
N-Alkylpyrrolidone	0.5	Flam. Liquid 4; Skin Irrit. 2; Eye Irrit. 2A; Repr. 1B; STOT Single Exp. 3
4-(2,4-dimethylheptan-3-yl)phenol (branched)	0,1 – 1,0	Acute Tox. 4; Skin Corr. 1B; Repr. 2; Aquatic Acute 1; Aquatic Chronic 1 (M = 1 y M = 10)

**SECTION IV – FIRST AID MEASURES**

GENERAL ADVICE:	Avoid exposure to the product taking appropriate protective measures. Get medical advice.
EYE CONTACT:	Immediately flush with water for at least 15 minutes, holding eyelids apart to ensure that all eye and lid tissues rinsed. Washing eyes within several seconds is essential to achieve maximum effectiveness. If you have contact lenses, remove them after the first 5 minutes, then continue rinsing eye. Get medical advice.
SKIN CONTACT:	Wash immediately after contact with water for at least 15 minutes. Remove contaminated clothing and wash before reuse.
INHALATION:	For those providing assistance, avoid exposure. Use proper protection if necessary. Move victim and get fresh air. Keep calm. If not breathing, give artificial respiration. Get medical advice.
INGESTION:	DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical advice. If vomiting occurs spontaneously, place victim on side to reduce the risk of aspiration.
SYMPTOMS:	Inhalation: may cause nausea, headache and respiratory tract irritation. Skin contact: may cause irritation and burns. Eye contact: may cause irritation and burns. Ingestion: may cause irritation of the mucous membranes.
MEDICAL ADVICE:	Provide symptomatic treatment. For more information, contact a Poison Control Center.

**SECTION V – FIREFIGHTING MEASURES**

EXTINGUISHING MEDIA:	Use dry chemical, foam, sand or CO <sub>2</sub> . Use the product according to surrounding materials. DO NOT USE water jets.
FLASH POINT:	Not flammable.
FLAMMABLE LIMITS:	N/D
SPECIAL HAZARDS:	NOT FLAMMABLE. The liquid will not ignite easily. In case of fire may release irritating and/or toxic fumes and gases, such as carbon monoxide and other substances derived from incomplete combustion.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:	Use self-contained breathing apparatus. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. For large spills wear protective clothing against chemicals, which is specifically recommended by the manufacturer. It may provide little or no thermal protection.
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ADVICE FOR FIREFIGHTERS:	Spray the packaging with water to avoid ignition or to keep them cool if exposed to excessive heat or fire. Remove the packages if they have not yet been reached by the flames, and you can do so without risk. Cool containers with water until the fire has extinguished. Prevent water used for fire control or dilution from entering watercourses, drains or springs.
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## SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:	Eliminate all ignition sources (no smoking, do not use flares, sparks or flames in immediate area). Evacuate personnel to a ventilated area. Ventilate immediately, especially where product may accumulate. Do not allow reuse of spilled product.
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ENVIRONMENTAL PRECAUTIONS:	Contain spilled liquid with a dam or barrier. Prevent entry into navigable waterways, sewers, basements or uncontrolled confined areas.
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CONTAINMENT AND CLEANING UP:	Contain and recover the liquid when possible. Collect the liquid product with sand, vermiculite, earth or inert absorbent material and then completely clean the affected area. Dispose of the waste properly.
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## SECTION VII – HANDLING AND STORAGE

Do not eat, drink or smoke during handling. Avoid contact with eyes, skin and clothing. Wash after handling.

### CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store in a clean, dry, well-ventilated area. Protect from sunlight. Keep containers/packages closed. Do not store near open flames or heat sources. Good ventilation is required. It is recommended not to make high stacks of more than 2 plastic drums, no more than 2 containers of 1000 liters and no more than 3 metal drums. Dangerous waste may remain inside the empty drum so it should not be reused, marketed or transferred to third parties under any circumstances. The disposition of the empty drum must be done according to the applicable legal regulations.

Keep away from Strong oxidizing agents, bases, halogens.

Material appropriate packaging: Supplied by the manufacturer.

## SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL PARAMETERS:	TLV-TWA (ACGIH): N/D TLV-STEL (ACGIH): N/D PEL (OSHA): N/D IDLH (NIOSH): N/D
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EXPOSURE CONTROLS:	Keep workplace ventilated. The normal routine ventilation is usually adequate. Use local hoods for operations that produce or release large amounts of product. In low or confined areas provide mechanical ventilation. Provide showers and eyewash stations near workplace.
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PERSONAL PROTECTION EQUIPMENT, INHALATION:	When necessary, wear an organic gas or steam (A) respirator. Pay special attention to oxygen levels in the air. If large releases occur, wear self-contained breathing apparatus (SCBA).
SKIN PROTECTION:	When necessary, wear impermeable protective PVC gloves (complying with standards EN 374), clothes and safety footwear resistant to chemicals.
EYE AND FACE PROTECTION:	When necessary, wear chemical splash-proof safety glasses (complying with EN 166).

### SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Liquid.
COLOR:	N/D
ODOUR:	Light to ammonia
ODOUR THRESHOLD:	N/D
pH:	0,20 ± 0,10 (direct)
MELTING POINT:	N/D
BOILING POINT:	N/D
FLASH POINT:	Not flammable.
EVAPORATION RATE:	N/D
AUTO-IGNITION TEMPERATURE:	N/D
EXPLOSIVE LIMITS:	N/D
VAPOUR PRESSURE (20°C):	N/D
VAPOUR DENSITY (AIR=1):	N/D
RELATIVE DENSITY (20°C):	1,205 ± 0,01 g/cm <sup>3</sup>
SOLUBILITY (20°C):	Soluble in water.
HENRY CONSTANT (20°C):	N/D
PARTITION COEFF. (logKo/w):	N/D
VISCOSITY (20°C):	< 100 cSt
EXPLOSIVE PROPERTIES:	Not explosive. According to column 2 of Annex VII of REACH, this study is not required because: in the molecule no chemical groups are associated with explosive properties.
OXIDIZING PROPERTIES:	According to column 2 of Annex XVII of REACH, this study is not necessary because: the substances present in the product, due to their chemical structures, are incapable of reacting exothermically with combustible materials.
OTHER PROPERTIES:	None

### SECTION X – STABILITY AND REACTIVITY

REACTIVITY:	It is not expected that product reactions or decomposition may occur under normal storage conditions. It does not contain organic peroxides. It is not
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corrosive to metals. Does not react with water.

CHEMICAL STABILITY:	The product is chemically stable and does not require stabilizers.
HAZARDOUS REACTIONS:	No hazardous polymerization is expected.
CONDITIONS TO AVOID:	Avoid elevated temperature.
HAZARDOUS DECOMPOSITION PRODUCTS:	When heated, it may release toxic and irritating vapors. In case of fire, see section 5.
INCOMPATIBLE MATERIALS:	Strong oxidizing agents, bases, halogens.

## SECTION XI – TOXICOLOGICAL INFORMATION

ROUTES OF EXPOSURE:	Inhalation, skin and eye contact.
ACUTE EFFECTS:	Inhalation: may cause nausea, headache and respiratory tract irritation. Skin contact: may cause irritation and burns. Eye contact: may cause irritation and burns. Ingestion: may cause irritation of the mucous membranes.

### CARCINOGENICITY, MUTAGENICITY AND REPRODUCTION TOXICITY:

Carcinogenicity: No information is available on any component of this product, present at levels greater than or equal to 0.1%, that is classified as probable, possible or confirmed human carcinogen by IARC (International Agency for Research on Cancer).

Mutagenicity: 1-Methyl-2-pyrrolidone (CAS 872-50-4) is classified as a mutagen category 1B.

Tox. Repr. : There are no components of this product, present at a concentration greater than or equal to 0.1%, that classify as hazardous for reproduction according to the GHS.

Teratogenicity: There are no components of this product, present at a concentration greater than or equal to 0.1%, that classify as a teratogen.

STOT-SE: There are no components of this product, present at a concentration greater than or equal to 1%, that they classify as toxic to target organs according to the GHS.

STOT-RE: May cause respiratory tract irritation.

Aspiration: There are no components of this product, present at a concentration greater than or equal to 10%, that classify as toxic by aspiration according to the GHS.

### ANIMAL TOXICITY VALUES:

There is no information about the toxicity of the product, but acute toxicity estimations are presented.

ATE-LD50 oral (rat, OECD401): > 2000 mg/kg

ATE-LD50 der (rabbit, OECD 402): > 2000 mg/kg

ATE-LC50 inh. (rat, 4hs., OECD 403): > 10 mg/l

Skin irr. (rabbit, estim.): irritant

Eye irr. (rabbit, estim.): irritant

Skin sens (Guinea pig, estim.): not sensitising

Resp. sens (Guinea pig, estim.): not sensitizing

## SECTION XII – ECOLOGICAL INFORMATION

ECOTOXICITY:	There is no information about the ecotoxicity of the product, but acute toxicity estimations are presented. ATE-EC50 (O. mykiss, OECD 203, 48hs.): 64 mg/l ATE-EC50 (D. magna, OECD 202, 48hs.): > 100 mg/l ATE-EC50 (P. subcapitata, OECD 201, 48hs.): > 100 mg/l ATE-EC50 (D. rerio, OECD 204, 14d.): 8,2 mg/l ATE-EC50 (D. magna, OECD 211, 14d.): 18,8 mg/l
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PERSISTENCE AND DEGRADABILITY:	BIODEGRADABILITY (estimated): The product is readily biodegradable. PNEC (water): N/D PNEC (sea water): N/D PNEC-STP: N/D
BIOACCUMULATIVE POTENTIAL:	Log Ko/w (OCDE 107 o 117): N/D BIOCONCENTRATION FACTOR - BCF (OCDE 305): N/D
MOBILITY IN SOIL:	HENRY CONSTANT (20°C): N/D LogKoc: N/D
OTHER ADVERSE EFFECTS:	Does not contain organic halogens nor metals.

### SECTION XIII – DISPOSAL CONSIDERATIONS

Both the excess product and empty containers should be disposed of in accordance with current legislation regarding the Protection of Environment and particularly of hazardous waste. Waste should be classified and disposed by an authorized company.

Empty containers may contain residue and thus be dangerous. Do not attempt to refill or clean containers without appropriate instructions.

### SECTION XIV – TRANSPORT INFORMATION

#### TRANSPORT BY LAND

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID Number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard identification number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Excepted and limited quantity:	NOT CLASSIFIED AS A DANGEROUS GOODS
Special provisions:	NOT CLASSIFIED AS A DANGEROUS GOODS

#### AIR TRANSPORT (ICAO/IATA)

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID Number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
PAX and Cargo Packing instructions:	NOT CLASSIFIED AS A DANGEROUS GOODS
Cargo Packing instructions:	NOT CLASSIFIED AS A DANGEROUS GOODS
ERC:	NOT CLASSIFIED AS A DANGEROUS GOODS
Special provisions:	NOT CLASSIFIED AS A DANGEROUS GOODS

#### SEA TRANSPORT (IMO)

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID N°:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
EMS:	NOT CLASSIFIED AS A DANGEROUS GOODS
Stowage and manipulation:	NOT CLASSIFIED AS A DANGEROUS GOODS

Segregation:	NOT CLASSIFIED AS A DANGEROUS GOODS
Marine pollutant:	NO
Proper Shipping Name: NOT CLASSIFIED AS A DANGEROUS GOODS	

## SECTION XV – REGULATORY INFORMATION

Regulations and safety legislation specific for the substance or mixture:

Not dangerous for the ozone layer.

Volatile organic compounds (VOC's): N/D

Globally Harmonized System of Classification and Labelling of Chemicals, fifth revised edition, 2013 (GHS 2013 - 'ST / SG / AC 10/30 / Rev.5'). The fifth edition is taken into consideration because it is the one valid for Argentina according to Resolution 801/2015 of the SRT. In any case, the information is contrasted with Revision 7 ('ST / SG / AC 10/30 / Rev.7') and clarification is made if required.

Agreement on Transport of Dangerous Products within the MERCOSUR, MERCOSUR\CMC\DEC N° 2/94.

European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2019) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2019) and amendments.

International Maritime Dangerous Goods Code (IMDG 2018 - Amendment 39-18), International Maritime Organization (IMO).

IBC Code 2016, IMO, IMO Resolution MSC.369 (93).

Regulations of the International Air Transport Association (IATA 60 ed., 2019) on the transport of dangerous goods by air.

## SECTION XVI – OTHER INFORMATION

ACGIH: American Conference of Governmental Industrial Hygienists.

ATE: Acute toxicity estimate.

CAS: Chemical Abstracts Service.

CMP: maximum concentration allowed.

CMP-C: maximum concentration allowed, ceiling concentration.

CMP-CPT: maximum concentration allowed, short time period.

EC: effect concentration.

EC50: Average Effective Concentration.

ERC: Emergency response card.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

IDLH: Immediately dangerous to life or health

IMDG: International Maritime Dangerous Goods.

IMO: International Maritime Organization.

LC: Lethal concentration.

LD: Lethal dose.

Log Ko/w: octanol-water partition coefficient.

Log Koc: organic carbon to water partition coefficient.

N/A: not applicable.

MTESS: Ministry of Labor, Employment and Social Security, Argentina.

N/D: no data available.

NFPA: National Fire Protection Association.

NIOSH: National Institute for Occupational Safety and Health

NOEC: No observed effect concentration.

OECD: Organisation for Economic Co-operation and Development.

OSHA: Occupational Safety and Health Administration.

PAX: Passengers.

PBT: persistent, bioaccumulative or toxic criteria.

PEL: Permissible Exposure Limit.

PMCC: Pensky Martens closed cup

PNEC: Predicted No Effect Concentration

PNEC-STP: Predicted No Effect Concentration – sewage treatment plant.

PPE: Personal protection equipment.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals - Europa.

REL: Recommended Exposure Limit.

SRT: Superintendence of Labor Risks, Argentina.

STEL: Short Term Exposure.

TLV: Threshold Limit Value.

UN: United Nations.

vPvB: very persistent or very bioaccumulative.

**Key literature references and sources for data**

International Agency for Research on Cancer (IARC), carcinogen classification.

European Regulation 1272/2008, Classification, labelling and packing (CLP)

European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2019) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2019) and amendments.

International Maritime Dangerous Goods Code (IMDG 2018 - Amendment 39-18), International Maritime Organization (IMO).

IBC Code 2016, IMO, IMO Resolution MSC.369 (93).

Regulations of the International Air Transport Association (IATA 60 ed., 2019) on the transport of dangerous goods by air.

The classification was performed based on chemical analogues and product information compiled by CIQUIME.

SECTION 2: classification by analogy with other products, and based on product data.

SECTION 9: product data.

SECTION 11 and 12: analogy with other products.

Acute toxicity: calculation method for estimating acute toxicity.

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>REACTIVITY</b>	<b>1</b>
<b>TARGET ORGANS</b>	<b>1</b>



Obligatory safety goggles.



Obligatory gloves.



Obligatory overall.

The information in this document refers to the product, and not to another product or process that involves it. This document provides health and safety information. The information is correct and complete according to our knowledge. It is provided in good faith, but without guarantee. Use the product according to the recommendations for use. If you use this product you should be informed of the recommended safety precautions and should have access to this information. For any other use, evaluate exposure and implement appropriate handling measures and training programs to ensure safe operations in the workplace.

It remains your responsibility that this information is appropriate and complete for the use of the product.

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