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SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: <u>DRY 5</u>

· Article number: NVS5

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Life cycle stages PW Widespread use by professional workers

· Sector of Use

SU21 Consumer uses: Private households / general public / consumers

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

- · Product category PC35 Washing and cleaning products (including solvent based products)
- · Application of the substance / the mixture Spotting agent for industrial laundry
- · Uses advised against Any use other than those identified is not recommended.
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

G.B.M. Elettrochimica s.r.l.

via Fiumicino S. Mauro 120/130 - 47039 Savignano sul Rubicone (FC)

tel. 0541/930058 - Fax 0541/810218

www.gbmprodottichimici.it - E-mail gbm@prodottichimici.it

- · Further information obtainable from: info @gbmprodottichimici.it
- · 1.4 Emergency telephone number:

G.B.M. Elettrochimica srl - Tel. +39 0541 930058 (office hours)

Centro Antiveleni di Milano 02 66101029 (CAV Ospedale Niguarda Ca' Granda -Milano)

Centro Antiveleni di Pavia 0382 24444 (CAV IRCCS Fondazione Maugeri - Pavia)

Centro Antiveleni di Bergamo 800 883300 (CAV Ospedali Riuniti - Bergamo)

Centro Antiveleni di Firenze 055 7947819 (CAV Ospedale Careggi - Firenze)

Centro Antiveleni di Roma 06 3054343 (CAV Policlinico Gemelli - Roma)

Centro Antiveleni di Roma 06 49978000 (CAV Policlinico Umberto I - Roma)

Centro Antiveleni di Napoli 081 7472870 (CAV Ospedale Cardarelli - Napoli)

Centro Antiveleni di Foggia 0881 732326 (CAV Ospedale Univ. - Foggia)

Centro Antiveleni di Roma 06 68593726 (CAV Osp. Pediatrico Bambino Gesù - Roma)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS05 GHS07

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· Signal word Danger

· Hazard-determining components of labelling:

Alcohols, C12-15, ethoxylated

n-butyl acetate

· Hazard statements

H315 Causes skin irritation.

H318 Causes serious eve damage.

H336 May cause drowsiness or dizziness.

Precautionary statements

P261 Avoid breathing spray.

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves / eye protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

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.

P404 Store in a closed container.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

PBT: Not applicable.vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 123-86-4 EINECS: 204-658-1 Reg.nr.: 01-2119485493-29-	n-butyl acetate ♠ Flam. Liq. 3, H226; ♦ STOT SE 3, H336	25-40%	
CAS: 111-76-2 EINECS: 203-905-0 Reg.nr.: 01-2119475108-36-xxxx	2-butoxyethanol	15-25%	
CAS: 68131-39-5	Alcohols, C12-15, ethoxylated Eye Dam. 1, H318; Aquatic Acute 1, H400	15-25%	

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Rescue workers must wear the protective equipment described in section 8.2 of this safety data

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

Eyes: corrosive, corneal damage, irritation

Skin: irritation

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Use fire extinguishing methods suitable to surrounding conditions.

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

- · 5.3 Advice for firefighters
- · Protective equipment:

See Section 8 for information on personal protection equipment.

See Section 8 for information on personal protection equipment.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

See Section 8 for information on personal protection equipment.

See Section 8 for information on personal protection equipment.

- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

No special precautions are necessary if used correctly.

You should follow the usual precautions for handling chemical products

See Section 8 for information on personal protection equipment.

- Information about fire and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

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· 8.1 Control parameters

· Ingre	· ingredients with limit values that require monitoring at the workplace:	
123-8	86-4 n-butyl acetate	
WEL	Short-term value: 966 mg/m³, 200 ppm Long-term value: 724 mg/m³, 150 ppm	
111-7	76-2 2-butoxyethanol	
WEL	Short-term value: 246 mg/m³, 50 ppm Long-term value: 123 mg/m³, 25 ppm Sk. BMGV	

· DNELs

123-86-4	n-butyl	acetate

111-76-2 2-butoxyethanol		
		960 mg/m3 (professional workers)
	Long term, local effect	859 mg/m3 (general population)
		480 mg/m3 (professional workers)
Inhalative		102 mg/m3 (general population)

111-76-2 2-butoxyetnanoi

Oral	Long term, systemic effect	6.3 mg/kg bw/day (general population)
Dermal	Long term, systemic effect	75 mg/kg bw/day (general population)
		125 mg/kg bw/day (professional workers)
Inhalative	Short term, local effect	147 mg/m3 (general population)
		246 mg/m3 (professional workers)
	Short term, systemic effect	426 mg/m3 (general population)
		652 mg/m3 (professional workers)
	Long term, systemic effect	59 mg/m3 (general population)
		98 mg/m3 (professional workers)
	Lungo termine, effetti sistemici	67.5 mg/Kg bw/day (professional workers)

· PNECs

111-76-2 2-butoxyethanol

34.6 mg/kg (fresh water sediments)
3.46 mg/kg (marine water sediments)
2.33 mg/kg (soil)
8.8 mg/l (freshwater)

9.1 mg/l (intermittent releases) 0.88 mg/l (marine water) 463 mg/l (sewage treatment plant)

· Ingredients with biological limit values:

111-76-2 2-butoxyethanol

BMGV 240 mmol/mol creatinine

Medium: urine

Sampling time: post shift Parameter: butoxyacetic acid

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection: Not required.

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Safety data sheet according to 1907/2006/EC, Article 31

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· Protection of hands:



Protective gloves

Only use EN 374-3 certified protective gloves against chemical agents.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Recommended thickness of the material: ≥ 0.2 mm

Nitrile rubber, NBR

Neoprene gloves

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Value for the permeation: Level 2/3

· Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Fluid
Colour: Colourless
Odour: Characteristic
Odour threshold: Not determined.

· pH-value at 20 °C: 7

· Change in condition

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: 100 °C

Flash point: Not applicable.
 Flammability (solid, gas): Not applicable.

· Auto-ignition temperature: Product is not selfigniting.

• Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

apour pressure at 20 °C: 23 hPa

Vapour pressure at 20 °C: 23 hPa
 Density at 20 °C: 0.7 g/cm³

Relative density

Not determined.

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· Vapour density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
water:	Soluble.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	40.0 %	
· 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid

The product is normally supplied in a stabilized form. Avoid excessive heat for long periods of time, the product can polymerize. Avoid heat, flames and other sources of ignition

• 10.5 Incompatible materials: Avoid contact with acids and oxidants.

1,000-2,000 mg/kg (rat)

• 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50	· LD/LC50 values relevant for classification:			
ATE (Acu	ATE (Acute Toxicity Estimates)			
Oral	LD50	2,133 mg/kg (rabbit)		
Dermal	LD50	6,667-13,333 mg/kg (rat)		
Inhalative	LC50/4 h	73.3 mg/l (rat)		
123-86-4	123-86-4 n-butyl acetate			
Oral	LD50	13,100 mg/kg (rat)		
Dermal	LD50	>5,000 mg/kg (rabbit)		
Inhalative	LC50/4 h	>21 mg/l (rat)		
111-76-2	111-76-2 2-butoxyethanol			
Oral	LD50	1,200 mg/kg (mouse)		
		1,776 mg/kg (rat)		
		320 mg/kg (rabbit)		

Primary irritant effect:

Dermal

· Skin corrosion/irritation

LD50

Inhalative LC50/4 h 11 mg/l (rat)

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability Easily biodegradable
- 12.3 Bioaccumulative potential Non significant accumulation in organisms
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Do not discard the product or its packaging. Do not empty into drains. Recycle the product. When recycling is not possible, dispose through an authorized company in compliance with the local or national regulations. The assignment of the waste code is the user's responsibility, after determining the properties of the waste and the process generating it and after discussing it with the authorities responsible for disposal.

- Uncleaned packaging:
- Recommendation:

Empty the containers before disposal. Do not reuse the emptied containers. Send the empty containers to recycling or to an authorized company in compliance with local and national regulations.

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void	
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA		
Class	Void	
· 14.4 Packing group		
· ADR, IMDG, IATA	Void	

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 14.5 Environmental hazards: Marine pollutant: 	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to And of Marpol and the IBC Code	nex II Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void

SECTION 15: Regulatory information

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

This product is to be considered as a preparation according to EU-legislation.

This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

Safety data sheet prepared in accordance with Regulation 1907/2006/EC Article 31, Regulation (EU) No 830/2015 as subsequent amendments.

Regulation (EC) No 648/2004 on detergents / Labelling for contents
 non-ionic surfactants

≥15 - <30%</p>

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

· Relevant phrases

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

H400 Very toxic to aquatic life.

Classification according to Regulation (EC) No 1272/2008

As required by Regulation 1272/2008/CE art. 9, the classification of this compound is based on the calculation method taken from the data of the single substances therein and from the experimental data of this compound where available (viewable in sections 9, 11 and 12 in this document).

Procedure used for the classification of the mixture

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Skin Irrit. 2, H315 - Calculation method Eye Dam. 1, H318 - method of calculation STOT SE 3, H336 - Calculation method

· Contact: --

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids - Category 3 Acute Tox. 4: Acute toxicity - Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1