

## SECTION 1: IDENTIFICATION

**1.1 GHS Product identifier:** DRYLYTE - DLYTE MIX MSA-S

**1.2 Recommended use of the chemical and restrictions on use:**

Relevant uses: Chemical treatment of metal surfaces. For professional user/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

**1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

DRYLYTE

Calle : Salvador Alarma,16

08035 BARCELONA - Barcelona - ESPAÑA

Phone.: 931 256 536

office@drylyte.com

http://www.dlyte.es

**1.4 Emergency phone number:**

## SECTION 2: HAZARD(S) IDENTIFICATION

**2.1 Classification of the substance or mixture:**

Product classified regardless of its extreme pH.

**NFPA:**

Health Hazards: 3

Flammability Hazards: 0

Instability Hazards: 0

Special Hazards: Non-applicable

**29 CFR 1910.1200:**

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318

Met. Corr. 1: Corrosive to metals, Category 1, H290

Skin Corr. 1B: Skin corrosion, Category 1B, H314

**2.2 Label elements:**

**NFPA:**



**29 CFR 1910.1200:**

**Danger**



**Hazard statements:**

Met. Corr. 1: H290 - May be corrosive to metals

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

**Precautionary statements:**

P234: Keep only in original container

P264: Wash thoroughly after use

P280: Wear protective gloves/protective clothing/eye protection/face protection

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

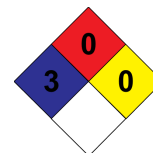
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310: Immediately call a poison center/doctor

**Substances that contribute to the classification**

Methanesulphonic acid

- CONTINUED ON NEXT PAGE -



**SECTION 2: HAZARD(S) IDENTIFICATION (continued)**

**Acute Toxicity Estimate (ATE mix):**

32.25 % (oral), 32.25 % (dermal) of the mixture consists of ingredient(s) of unknown toxicity

**2.3 Other hazards which do not result in classification:**

Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances:**




Non-applicable

**3.2 Mixtures:**

**Chemical description:** Mixture composed of chemical products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. Exact percentage values for components are proprietary in accordance with 29 CFR 1910.1200(i). Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 69011-20-7	<b>Polystyrene sulphonic acid</b> Eye Irrit. 2: H319 - Warning 	<b>25 - &lt;50 %</b>
CAS: 75-75-2	<b>Methanesulphonic acid</b> Acute Tox. 4: H302+H312; Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger  	<b>10 - &lt;25 %</b>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

**SECTION 4: FIRST-AID MEASURES**

**4.1 Description of necessary measures:**

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

**4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

**5.1 Suitable (and unsuitable) extinguishing media:**

- CONTINUED ON NEXT PAGE -



## SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

#### Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

### 6.2 Environmental precautions:

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

### 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

### 7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 41 °F

Maximum Temp.: 104 °F

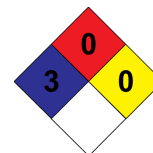
Maximum time: 12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

### 7.3 Specific end use(s):

- CONTINUED ON NEXT PAGE -



**SECTION 7: HANDLING AND STORAGE (continued)**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace


Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

**8.2 Appropriate engineering controls:**


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection


Pictogram	PPE	Remarks
 Compulsory use of face mask	Filter mask for particles	Replace when an increase in resistance to breathing is observed. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

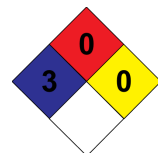
D.- Ocular and facial protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)



E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration.

F.- Additional emergency measures



**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2002	 Eyewash stations	DIN 12 899 ISO 3864-1:2002

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 68 °F: Solid  
 Appearance: Powdery  
 Color: Yellow-red  
 Odor: Odorless  
 Odour threshold: Non-applicable \*

**Volatility:**

Boiling point at atmospheric pressure: 283 - 383 °F (ASTM D-2887)  
 Vapour pressure at 68 °F: Non-applicable \*  
 Vapour pressure at 122 °F: Non-applicable \*  
 Evaporation rate at 68 °F: Non-applicable \*

**Product description:**

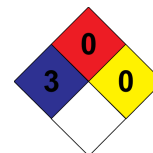
Density at 68 °F: 1091 kg/m<sup>3</sup>  
 Relative density at 68 °F: 1.091  
 Dynamic viscosity at 68 °F: Non-applicable \*  
 Kinematic viscosity at 68 °F: Non-applicable \*  
 Kinematic viscosity at 104 °F: Non-applicable \*  
 Concentration: 100 g/L (active ingredient)  
 pH: 1.5 - 2.5 at 100 %  
 Vapour density at 68 °F: Non-applicable \*  
 Partition coefficient n-octanol/water 68 °F: Non-applicable \*  
 Solubility in water at 68 °F: Non-applicable \*  
 Solubility properties: Non-applicable \*  
 Decomposition temperature: Non-applicable \*  
 Melting point/freezing point: Non-applicable \*  
 Explosive properties: Non-applicable \*  
 Oxidising properties: Non-applicable \*

**Flammability:**

Flash Point: Non-applicable  
 Flammability (solid, gas): Non-applicable \*  
 Autoignition temperature: Non-applicable \*  
 Lower flammability limit: Non-applicable \*  
 Upper flammability limit: Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

**Explosive:**

Lower explosive limit: Non-applicable \*

Upper explosive limit: Non-applicable \*

**9.2 Other information:**

Surface tension at 68 °F: Non-applicable \*

Refraction index: Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**10.5 Incompatible materials:**

Acids	Water	Oxidising materials	Combustible materials	Others
Not applicable	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

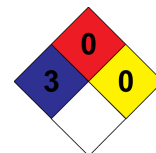
- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -



**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.  
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**E- Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**F- Specific target organ toxicity (STOT) - single exposure:**

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

**G- Specific target organ toxicity (STOT)-repeated exposure:**

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H- Aspiration hazard:**

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

Identification	Acute toxicity		Genus
	Methanesulphonic acid CAS: 75-75-2	LD50 oral	
	LD50 dermal	1000 mg/kg	Rabbit
	LC50 inhalation	Non-applicable	

**Acute Toxicity Estimate (ATE mix):**

ATE mix		Ingredient(s) of unknown toxicity
Oral	5599.05 mg/kg (Calculation method)	32.25 %
Dermal	4839.29 mg/kg (Calculation method)	32.25 %
Inhalation	>5 mg/L (4 h) (Calculation method)	Non-applicable

**SECTION 12: ECOLOGICAL INFORMATION**

The experimental information related to the eco-toxicological properties of the product itself is not available

**12.1 Ecotoxicity (aquatic and terrestrial, where available):**

Identification	Acute toxicity		Species	Genus
	Methanesulphonic acid CAS: 75-75-2	LC50		
	EC50	50 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	26 mg/L (96 h)	Selenastrum capricornutum	Algae

**12.2 Persistence and degradability:**

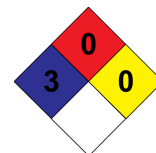
Identification	Degradability		Biodegradability	
	Methanesulphonic acid CAS: 75-75-2	BOD5	Non-applicable	Concentration
	COD	Non-applicable	Period	28 days
	BOD5/COD	Non-applicable	% Biodegradable	100 %

**12.3 Bioaccumulative potential:**

Not available

**12.4 Mobility in soil:**

- CONTINUED ON NEXT PAGE -



**SECTION 12: ECOLOGICAL INFORMATION (continued)**

Identification	Absorption/desorption		Volatility	
Methanesulphonic acid CAS: 75-75-2	Koc	1	Henry	1.28E-3 Pa·m <sup>3</sup> /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	0E+0 N/m (-459.67 °F)	Moist soil	No

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

Non-applicable

**12.6 Other adverse effects:**

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Disposal methods:**

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

This product is not regulated for transport.

**SECTION 15: REGULATORY INFORMATION**

**15.1 Safety, health and environmental regulations specific for the product in question:**

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable  
 California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
 The Toxic Substances Control Act (TSCA) : Polystyrene sulphonic acid ; Methanesulphonic acid  
 Massachusetts RTK - Substance List: Non-applicable  
 New Jersey Worker and Community Right-to-Know Act: Methanesulphonic acid  
 New York RTK - Substance list: Methanesulphonic acid  
 Pennsylvania Worker and Community Right-to-Know Law: Non-applicable  
 CANADA-Domestic Substances List (DSL): Polystyrene sulphonic acid ; Methanesulphonic acid  
 CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
 NTP (National Toxicology Program): Non-applicable  
 Minnesota - Hazardous substances ERTK: Non-applicable  
 Rhode Island - Hazardous substances RTK: Non-applicable  
 OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable  
 Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The Toxic Substances Control Act (TSCA)  
 Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

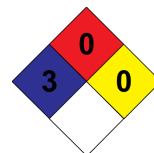
**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

- CONTINUED ON NEXT PAGE -





**SECTION 16: OTHER INFORMATION (continued)**

**Texts of the legislative phrases mentioned in section 2:**

H318: Causes serious eye damage  
H290: May be corrosive to metals  
H314: Causes severe skin burns and eye damage

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin  
Eye Dam. 1: H318 - Causes serious eye damage  
Eye Irrit. 2: H319 - Causes serious eye irritation  
Met. Corr. 1: H290 - May be corrosive to metals  
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage  
STOT SE 3: H335 - May cause respiratory irritation

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET