

Safety data sheet



DRYflex Part A1

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 Product identifier	Commercial Product Name:	Dryflex Part A1
	Product type:	Blend
1.2 RELEVANT USES IDENTIFIED OF THE SUBSTANCE OR MIXTURE AND USES NOT RECOMMENDED	Identified uses:	Transformation aid for industrial applications.
	Uses advised against:	None.
1.3 Details of the supplier of the safety data sheet	Company:	Drytech International SA via Industrie 12 CH-6930 Bedano TI SVIZZERA
	T	+41 (0)91 960 23 49
	@	info@drytechinternational.com
1.4 Emergency telephone number	Switzerland: 145 From abroad: +41 44 251 51	

2. HAZARDS IDENTIFICATION

2.1 SUBSTANCE OR MIXTURE CLASSIFICATION	Classification according to the directive CE 1272/2008 (CLP):	The product is not considered dangerous according to the EC directive 1272/2008 (CLP)
2.2 LABEL ELEMENTS	Hazard pictograms:	 
	Hazard statement:	H319 Causes severe eye irritation. H373 May cause damage to organs through prolonged or repeated exposure if swallowed
	Precautionary advice:	P280: Protect eyes / face P314: In case of malaise consult a doctor P305+P351+P338 In case of contact with eyes: rinse thoroughly for several minutes. Remove any contact lenses if easy to do. Continue rinsing. P310: Contact a poison control center or doctor immediately.
	Additional elements:	None.

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2.3 OTHER DANGERS	Evaluation PBT e vPvB.	They do not meet the criteria set out in Annex XIII of the REACH regulation.
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3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 SUBSTANCES	This product is not a substance.
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3.2 MIXTURES

This product is a blend.
Hazardous components within the meaning of the CLP Regulation and related classification:

TRIETHANOLAMINE

Concentration/ -range:	<30%
No.CE.:	203-049-8
REACH registration number:	01-2119486482-31-XXXX
Classification according to Regulation (CE) 1272/2008:	Not classified

DIETILEN GLICOLE

Concentration/ -range:	≤10%
REACH registration number:	REACH 01-2119457857-21-XXXX
Classification according to Regulation (CE) 1272/2008:	Acute Tox. 4; H302, STOT RE 2; H373

For explanation of abbreviations see paragraph 16

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

<i>Inhalation:</i>	Take to the fresh air. There are no dangers that require special first aid measures.
<i>Skin contact:</i>	Wash with soap and plenty of water. Consult a doctor if irritation increases and persists.
<i>Eye contact:</i>	Rinse your eyes for at least 15 minutes. Consult a doctor if eye irritation increases or persists.
<i>Ingestion:</i>	If ingested, DO NOT induce vomiting unless recommended by medical personnel. Seek immediate medical attention if symptoms occur.

4.2 MAIN SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

May cause eye or skin irritation in sensitive individuals.

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4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED		There are no dangers that require special first aid measures.
	<i>Other data:</i>	None(a)

5. FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA	<i>Suitable extinguishing media</i>	Foam. Carbon dioxide (CO ₂). Dry powder. Nebulized water.
	<i>Extinguishing agents to avoid:</i>	None
5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	<i>Hazardous decomposition products:</i>	Carbon oxides (COx). Nitrogen oxides (NOx). Hydrogen cyanide (hydrogen cyanide) can be produced in the event of combustion in an oxygen-deficient atmosphere.
5.3 ADVICE FOR FIREFIGHTERS	<i>Protection measures:</i>	In the event of fire, wear self-contained breathing apparatus.
	<i>Other data:</i>	Cool the containers / tanks with water sprays.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES	<i>Individual precautions:</i>	Avoid contact with eyes.
	<i>Protective clothing:</i>	Wear suitable protective equipment. (see Section 8: Exposure Controls / Personal Protection).
	<i>Emergency procedures:</i>	Keep people away from leaks. Avoid additional spills or leaks if this can be done without danger.
6.2 ENVIRONMENTAL PRECAUTIONS	As with all chemicals, do not discharge into surface water. The product must not enter sewers, water courses or soil.	
6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP	Dry with inert absorbent material.	
	<i>Small spills:</i>	Impregnate with inert absorbent material and dispose of as waste (see SECT. 13).
	<i>Large spills:</i>	Do not wash or flush with water
	<i>Residues:</i>	After removal, clean all traces with water.

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6.4. REFERENCE TO OTHER SECTIONS	Section 7	Handling and Storage
	Section 8	Controls in case of exposure / personal protection.
	Section 13	Disposal considerations.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING	Avoid the formation of aerosols. Avoid contact with skin and eyes. Use personal protective equipment. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of the working day.
7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	Keep in a dry, cool and well-ventilated place. Keep away from heat sources and other causes of fire. Incompatible with strong acids and oxidizing agents.
7.3. SPECIAL END USES	None

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 CONTROL PARAMETERS	National exposure limits		
	Dietanolamina		1 mg/m ³ (8 hours)
	Derived level with no effect (DNELs)/ Derived level with minimal effects(DMELs)		
TRIETHANOLAMINE	Workers		
	Systemic effects - long-term:	Skin contact	6.3 mg/kg/day
		Inhalation	5 mg/m ³
	Long-term localized effects:	Inhalation	5 mg/m ³
		Consumers	
	Systemic effects - long-term:	Ingestion	13 mg/kg/day
		Skin contact	3.1 mg/kg/day
		Inhalation	1.25 mg/m ³
	Long-term localized effects:	Inhalation	1.25 mg/m ³

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DIETILEN GLICOLE	<i>Workers</i>	
	<i>Systemic effects - long-term:</i>	<i>Skin contact</i> 106 mg/kg/day
	<i>Long-term localized effects:</i>	<i>Inhalation</i> 60 mg/m ³
	<i>Consumers</i>	
	<i>Systemic effects - long-term:</i>	<i>Skin contact</i> 53 mg/kg/day
	<i>Long-term localized effects:</i>	<i>Inhalation</i> 12 mg/m ³
TRIETHANOLAMINE	<i>Freshwater:</i>	0.32 mg/L
	<i>Marine water:</i>	0.032 mg/L
	<i>Intermittent release:</i>	5.12 mg/L
	<i>Wastewater treatment plant</i>	10 mg/L
	<i>Sediment (Freshwater):</i>	1.7 mg/kg
	<i>Sediment (Marine water):</i>	0.17 mg/kg
	<i>Soil:</i>	0.151 mg/kg
DIETILEN GLICOLE	<i>Freshwater:</i>	10 mg/L
	<i>Marine water:</i>	1 mg/L
	<i>Intermittent release:</i>	10 mg/L
	<i>Wastewater treatment plant</i>	199.5 mg/L
	<i>Sediment (Freshwater):</i>	20.9 mg/kg
	<i>Sediment (Marine water):</i>	2.09 mg/kg
	<i>Soil:</i>	1.53 mg/kg
	<i>Oral (secondary poisoning):</i>	The product is not expected to bioaccumulate
8.2 EXPOSURE CONTROLS	<i>Adequate engineering controls:</i>	<i>Use a suction room in case of condensation. Natural ventilation is adequate in the absence of vapors. Ensure adequate ventilation, especially in closed areas.</i>
	<i>Individual protection measures, such as personal protective equipment:</i>	
	<i>Eye / face protection:</i>	Safety glasses with side shields.
	<i>Skin protection:</i>	Use chemical resistant clothing and aprons.
	<i>Hand protection:</i>	Gloves in PVC or other plastic material.
<i>Respiratory protection:</i>	Not required, except in case of aerosol formation.	

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<i>Additional Tips:</i>	Wash hands after handling. Wash hands before breaks and at the end of the working day. Handle in compliance with good industrial hygiene and safety practice
<i>Environmental exposure controls:</i>	Do not drain the washing liquid into open water. Avoid uncontrolled disposal of the product in the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES	<i>Appearance:</i>	Liquid
	<i>Odour:</i>	Light
	<i>Odor threshold:</i>	Not applicable
	<i>pH:</i>	7 - 11
	<i>Melting point / freezing point:</i>	< 0°C
	<i>Boiling point and boiling range:</i>	> 100°C
	<i>Flash point</i>	It is not flammable
	<i>Evaporation rate:</i>	Like water.
	<i>Flammability (solid, gas):</i>	Not applicable
	<i>Upper / lower flammability or explosive limits:</i>	It is not expected to create explosive atmospheres.
	<i>Vapor pressure:</i>	No data available.
	<i>Vapour density:</i>	No data available.
	<i>Relative density:</i>	1.0 - 1.2
	<i>Solubility (ies):</i>	Fully miscible.
	<i>Partition coefficient:</i>	< 0
	<i>Self-ignition temperatures:</i>	No data available.
	<i>Temperature di decomposizione:</i>	No data available.
	<i>Viscosity:</i>	No data available.
	<i>Explosive properties:</i>	Not expected to be explosive based on chemical structure.
	<i>Oxidising properties:</i>	It should not be oxidizing based on the chemical structure.
9.2. OTHER INFORMATION		None

10. STABILITY AND REACTIVITY

10.1 REACTIVITY	Stable under normal conditions.
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10.2 CHEMICAL STABILITY	The polymerization is initiated by free radicals and peroxides.
10.3 POSSIBILITY OF HAZARDOUS REACTIONS	Not known.
10.4 CONDITIONS TO AVOID	Keep away from heat sources and other causes of fire.
10.5 INCOMPATIBLE MATERIALS	Incompatible with strong acids and oxidizing agents.
10.6 HAZARDOUS DECOMPOSITION PRODUCTS	Thermal decomposition can generate: nitrogen oxides (Nox), carbon oxides (COx), hydrogen cyanide (hydrogen cyanide).

11. TOXICOLOGICAL INFORMATION

Information about the supplied product:

11.1 TOXICOLOGICAL INFORMATION	Acute oral toxicity:	DL50/orale/on Rat > 5000 mg/kg (Valued)
	Acute dermal toxicity:	DL50/cutaneous/Rabbit > 5000 mg/kg (Valued)
	Acute Inhalation Toxicity:	The product is not toxic by inhalation.
	Skin corrosion / irritation:	Non Irritating
	Serious Eye Damage / severe eye irritation:	Slight skin irritation.
	Respiratory or cutaneous sensitization:	Non Sensitization.
	Mutagenicity:	Not mutagenic.
	Carcinogenicity:	Not a carcinogen.
	Toxicity for reproduction:	Not toxic to reproduction.
	STOT - single exposure:	No known effect.
	STOT - repeated exposure:	No known effect.
	Aspiration hazard:	No risk deriving from the material thus supplied.
	Useful information on hazardous components:	

TRIETHANOLAMINE	Acute oral toxicity:	DL50/orale/on Rat >5000 mg/kg (OECD 401)
	Acute dermal toxicity:	DL50/cutaneous/Rabbit >2000 mg/kg (OECD 402)
	Acute Inhalation Toxicity:	CL50/inhalation/8 hours/on Rat > 1.8 mg/m ³ (OECD 403)
	Skin corrosion / irritation:	Non Irritating. (OECD 404)
	Serious eye damage / eye irritation:	Non Irritating. (OECD 405)

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	<i>Respiratory or cutaneous sensitization:</i>	Non Sensitization. (OECD 406)
	<i>Mutagenicity:</i>	Negative in the Ames test (OECD 471). Negative in the mammalian in vitro chromosomal aberration test (OECD 473). Not mutagenic. (OCSE 476)
	<i>Carcinogenicity:</i>	Carcinogenicity study in rats (OCDE 451): NOAEL = 100 mg/kg/day
	<i>Toxicity for reproduction:</i>	NOAEL / Rat >1000 mg/kg/day (OECD 421) Prenatal developmental toxicity study (OECD 414) NOAEL / maternal toxicity / rats >1000 mg / kg / day NOAEL / developmental toxicity / rats = 300 mg / kg / day
	<i>STOT - single exposure:</i>	No known effect.
	<i>STOT - repeated exposure:</i>	No known effect.
	<i>Aspiration hazard:</i>	No known effect.
DIETILEN GLICOLE	<i>Acute oral toxicity:</i>	DL50/orale/on Rat = 25244 mg/kg
	<i>Acute dermal toxicity:</i>	DL50/cutaneous/Rabbit = 13300 mg/kg
	<i>Acute Inhalation Toxicity:</i>	CL50/inhalation/4 hours/on Rat > 4.6 mg/L
	<i>Skin corrosion / irritation:</i>	Non Irritating.
	<i>Serious Eye Damage / severe eye irritation:</i>	May cause slight temporary irritation in sensitive people.
	<i>Respiratory or cutaneous sensitization:</i>	Non Sensitization. (OECD 406)
	<i>Mutagenicity:</i>	Negative in the Ames test (OECD 471). Negative in the mammalian in vitro chromosomal aberration test (OECD 473). Not mutagenic. (OECD 474, 479)
	<i>Carcinogenicity:</i>	Carcinogenicity study in rats: NOAEL = 1160 - 1210 mg/kg/day
	<i>Toxicity for reproduction:</i>	NOAEL / Rat = 3060 mg/kg/day
	<i>STOT - single exposure:</i>	Prenatal developmental toxicity study (OECD 414) NOAEL / maternal toxicity / conigli = 1000 mg / kg / day NOAEL / developmental toxicity / conigli = 1000 mg / kg / day
	<i>STOT - repeated exposure:</i>	No known effect
	<i>Aspiration hazard:</i>	NOAEL/oral/Rat/225 days = 100 mg/kg/day NOAEL/oral/Rat/28 days = 937 mg/kg/day (OECD 407).

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12. ECOLOGICAL
INFORMATION

12.1. TOXICITY	<i>Information about the supplied product:</i>	
	<i>Acute Toxicity for Fish</i>	LC50/Fish/96 hours > 100 mg/L (Valued)
	<i>Acute Toxicity for Invertebrates</i>	CE50/Daphnia/48 hours > 100 mg/L (Valued)
	<i>Acute Toxicity for Algae:</i>	IC50/Chlorophic algae/72 hours > 100 mg/L (Valued)
	<i>Chronic Toxicity for Fish:</i>	No data available.
	<i>Chronic Toxicity for Invertebrates:</i>	No data available.
	<i>Toxicity for microorganisms:</i>	No data available.
	<i>Effects on soil organisms:</i>	No data available.
	<i>Sediment toxicity:</i>	No data available.
	<i>Useful information on hazardous components:</i>	
TRIETHANOLAMINE	<i>Acute Toxicity for Fish</i>	LC50/Pimephales promelas/96 hours = 11800 mg/L
	<i>Acute Toxicity for Invertebrates</i>	CE50/Ceriodaphnia Dubia/48 hours = 609.88 mg/L
	<i>Acute Toxicity for Algae:</i>	IC50/Scenedesmus subcapitatus/72 hours = 216 mg/L
	<i>Chronic Toxicity for Fish:</i>	No data available.
	<i>Chronic Toxicity for Invertebrates:</i>	NOEC/Daphnia magna/21 days = 16 mg/L (OECD 211)
	<i>Toxicity for microorganisms:</i>	EC50/Activated sludge/3h > 1000 mg/L (OECD 209)
	<i>Effects on soil organisms:</i>	No data are available. Readily biodegradable, exposure to soil is unlikely.
	<i>Sediment toxicity:</i>	No data are available. Readily biodegradable, exposure to sediments is unlikely.
DIETILEN GLICOLE	<i>Acute Toxicity for Fish</i>	LC50/Pimephales promelas/96 hours = 75200 mg/L
	<i>Acute Toxicity for Invertebrates</i>	CE50/Daphnia magna/24 hours > 10000 mg/L
	<i>Acute Toxicity for Algae:</i>	IC50/Chlorophic algae/96 hours = 9362 mg/L
	<i>Chronic Toxicity for Fish:</i>	LC50/Fish/30 days = 7694 mg/L
	<i>Chronic Toxicity for Invertebrates:</i>	CE50/Daphnia/16 days = 1891 mg/L
	<i>Toxicity for microorganisms:</i>	EC20/Activated sludge/0.5 h > 1995 mg/L
	<i>Effects on soil organisms:</i>	No data are available. Readily biodegradable, exposure to Soil is unlikely.
	<i>Sediment toxicity:</i>	No data are available. Readily biodegradable, exposure to sediments is unlikely.

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12.2 PERSISTENCE AND DEGRADABILITY

Information about the supplied product:

<i>Degradation:</i>	Easily biodegradable.
<i>Hydrolysis</i>	No data available.
<i>Photolysis:</i>	No data available.

Useful information on hazardous components:

TRIETHANOLAMINE

<i>Degradation:</i>	Easily biodegradable. 96% / 19 days (OECD 301 E)
<i>Hydrolysis</i>	No data available
<i>Photolysis:</i>	Time of halving: 0.15 days

DIETILEN GLICOLE

<i>Degradation:</i>	Easily biodegradable. > 70% / 28 days (OECD 301 B) ; > 90% / 28 days
<i>Hydrolysis</i>	No data available
<i>Photolysis:</i>	time of halving: 0.717 days

12.3. POTENTIAL OF BIOACCUMULATION

Information about the supplied product: The product is not expected to bioaccumulate.

Partition coefficient (Log Pow): < 0

Factor di bioconcentration (BCF): No data available.

Useful information on hazardous components:

TRIETHANOLAMINE

<i>Partition coefficient (Log Pow):</i>	-1.9 @ 25°C, pH 7.1-7.3 (OECD 117)
<i>Factor di bioconcentration (BCF):</i>	<0.4 @ 2.5 mg/L ; 3.9 @ 0.25 mg/l (OECD 305)

DIETILEN GLICOLE

<i>Partition coefficient (Log Pow):</i>	-1.47
<i>Factor di bioconcentration (BCF):</i>	100 @ 0.05 mg/L

12.4. MOBILITY IN THE SOIL

Information about the supplied product: Exposure to Soil is not to be expected.

Koc: <10

Useful information on hazardous components:

TRIETHANOLAMINE

Koc: 10

DIETILEN GLICOLE

Koc: 1

2.5. RESULTS OF PBT AND VPVB EVALUATION

Evaluation PBT: They do not meet the criteria set out in Annex XIII of the REACH regulation.

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	<i>Evaluation vPvB:</i>	They do not meet the criteria set out in Annex XIII of the REACH regulation.
12.6. OTHER ADVERSE EFFECTS		None
13. CONSIDERATIONS ON DISPOSAL		
13.1 WASTE TREATMENT METHODS	<i>Waste from residues / unused products:</i>	Rinse thoroughly with water and use the same for the preparation of the working solution. It can be landfilled or incinerated, when local legislation allows.
	<i>Contaminated containers:</i>	Empty containers should be transported to an authorized site for recycling or disposal.
	<i>Materials recovery:</i>	If recycling is not practicable, dispose of according to local laws.
14. TRANSPORT INFORMATION	<i>HS code</i>	29221500
	<i>Road transport (ADR / RID)</i>	Not classified.
	<i>Naval transport (IMDG)</i>	Not classified.
	<i>Air transport (IATA)</i>	Not classified.
15. REGULATORY INFORMATION		
15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE		All components of this product have been registered or registered in advance with the European Chemicals Agency or are exempt from the registration obligation.
15.2 CHEMICAL SAFETY ASSESSMENT		A chemical safety assessment has been carried out on this product by the person responsible for the development of this safety data sheet. All relevant information used for this evaluation is included in this safety data sheet and the measures to reduce the risks.
16. OTHER INFORMATION	<i>Explanation or legend of abbreviations and acronyms used in the safety data sheet.</i>	

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Abbreviations

Acute Tox. 4 = Acute Toxicity Category 4
 Eye Irrit. 2A = Eye irritation Category 2A
 Skin Irrit. 2 = Corrosion / irritation cutaneous Category 2
 STOT RE 2 = Specific target organ toxicity - repeated exposure Category 2
 Aquatic Chronic 3 = Dangerous for the aquatic environment Category 3

H-Phrases

H302 - Harmful if swallowed
 H412 - Harmful to aquatic life with long lasting effects
 H315 - Causes skin irritation
 H319 - Causes severe eye irritation
 H373 - May cause damage to organs through prolonged or repeated exposure if swallowed
 H412 - Harmful to aquatic life with long lasting effects

This safety data sheet has been prepared in accordance with the following:

Regulation (UE) n. 453/2010
 Regulation (CE) n. 1907/2006
 Regulation (CE) n. 1272/2008

The information contained in this safety data sheet was compiled on the basis of our knowledge at the date of publication of this document. This information is purely indicative to allow handling, transformation, storage, transport, distribution, supply, use and disposal in safe and saurient conditions, therefore interpreted as a guarantee or considered specific of quality. This information refers exclusively to the specific material entered and, if not specified, cannot be applicable in the case of a mixture of the product with other substances or in other manufacturing processes. The data contained in this safety data sheet refer exclusively to the specific designated material herein and does not refer to use in combination with other materials or in other processes. This information is based on technical information believed to be reliable. It is subject to review as new knowledge and experience is gained.

OF THE ATTACHMENTS

The product supplied is not dangerous and does not contain:

- Relevant components that would require a chemical safety assessment
- Components present in concentrations above the cut-off value

Therefore, pursuant to Regulation (EC) No. 1907/2006, article 31, paragraph 7, no display scenario attached to the aforementioned safety data sheet is available.