PROBRANDS

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation

of the mixture

Dykem® Transparent Stain - Steel Blue (Bulk)

Devistantian manual

Registration number

Synonyms None.

Part Number 80200, 80300, 80400, 80600, 80700

Issue date 26-March-2019

Version number 04

Revision date 21-December-2021
Supersedes date 21-December-2021

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified usesStaining colorsUses advised againstNone known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name ITW Performance Polymers

Address Bay 150

Shannon Industrial Estate Shannon, CO. Clare Ireland V14 DF82

Telephone 353 (61) 771 500

353 (61) 471 285 In Case of Emergency +44(0)1235 239 670 (24h)

Email mail@itwpp.com

Manufacturer

Company name ITW Pro Brands

Address 805 E. Old 56 Highway

Olathe, KS 66061

Country (U.S.A.)

Telephone +1 800-443-9536 **In Case of Emergency** +1 800-535-5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Flammable liquids Category 2 H225 - Highly flammable liquid and

vapour.

Health hazards

exposure

Serious eye damage/eye irritation Category 1 H318 - Causes serious eye

damage.

Specific target organ toxicity - single Category 3 narcotic effects H336 - May cause drowsiness or

dizziness.

Environmental hazards

Hazardous to the aquatic environment, Category 3 H412 - Harmful to aquatic life with

long-term aquatic hazard long lasting effects.

Hazard summary May be ignited by heat, sparks or flames. Causes serious eye damage. May cause drowsiness or

dizziness. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

Supplied by:

B46 1HG. UK

T: 01675 432850 E: <u>info@silmid.com</u>

Sil-Mid Limited
Roman Park, Roman Way

Coleshill, West Midlands

Emergency Telephone No. +44 (0)1675 432850 (Monday to Friday, 08:00 – 17:30 – GMT)

Material name: Dykem® Transparent Stain - Steel Blue (Bulk)

80200, 80300, 80400, 80600, 80700 Version #: 04 Revision date: 21-December-2021 Issue date: 26-March-2019

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Basic Violet 1, Butanol Normal, Butyl acetate, Cellulose Nitrate, Ethyl alcohol, Isopropanol, **Contains:**

Malachite Green Oxalate, Propyl acetate

Hazard pictograms



Signal word Danger

Hazard statements

Highly flammable liquid and vapour. H225 Causes serious eye damage. H318 May cause drowsiness or dizziness. H336

Harmful to aquatic life with long lasting effects. H412

Precautionary statements

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P210

Keep container tightly closed. P233

Keep cool. P235

Ground and bond container and receiving equipment. P240 Use explosion-proof electrical/ventilating/lighting equipment. P241

Use non-sparking tools. P242

Take action to prevent static discharges. P243

Do not breathe vapour. P260

Use only outdoors or in a well-ventilated area. P271

Avoid release to the environment. P273

Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P280

Response

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

water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. P304 + P340

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present P305 + P351 + P338

and easy to do. Continue rinsing

Immediately call a POISON CENTRE/doctor. P310 In case of fire: Use appropriate media to extinguish. P370 + P378

Storage

Store in a well-ventilated place. Keep container tightly closed. P403 + P233

Keep cool. P235 Store locked up. P405

Disposal

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

Supplemental label information EUH066 - Repeated exposure may cause skin dryness or cracking.

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation 2.3. Other hazards

> (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or

Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Ethyl alcohol	40 - 50	64-17-5 200-578-6	-	603-002-00-5	
	Classification: Flam. Liq.	2;H225			
Butyl acetate	30 - 40	123-86-4 204-658-1	-	607-025-00-1	#
	Classification: Flam. Liq.	3;H226, STOT SE 3;	H336		
Butanol Normal	1 - 5	71-36-3 200-751-6	-	603-004-00-6	

Classification: Flam. Liq. 3;H226, Acute Tox. 4;H302;(ATE: 500 mg/kg), Skin Irrit.

2;H315, Eye Dam. 1;H318, STOT SE 3;H335;H336

Material name: Dykem® Transparent Stain - Steel Blue (Bulk)

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Cellulose Nitrate	1 - 5	9004-70-0	-	603-037-00-6	
Classif	ication: -	-			Т
Isopropanol	1 - 5	67-63-0 200-661-7	01-2119457558-25-XXXX	603-117-00-0	
Classif	fication: Flam. Liq. 2	;H225, Eye Irrit. 2;H	1319, STOT SE 3;H336		
Propyl acetate	1 - 5	109-60-4 203-686-1	-	607-024-00-6	
Classif	ication: Flam. Liq. 2	;H225, Eye Irrit. 2;H	1319, STOT SE 3;H336		С
Basic Violet 1	0,1 - 1	8004-87-3 281-506-0	-	-	
Classif		4;H302;(ATE: 500 n 51, Aquatic Chronic	ng/kg), Skin Irrit. 2;H315, Ey 1;H410(M=10)	e Irrit. 2;H319,	
Malachite Green Oxalate	0,1 - 1	2437-29-8 219-441-7	-	602-096-00-5	
Classif		4;H302;(ATE: 500 n uatic Chronic 1;H41	ng/kg), Eye Dam. 1;H318, A 0	quatic Acute	

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note N: The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen.

SECTION 4: First aid measures

General information

Take off all contaminated clothing immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison centre or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

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

May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Coughing.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

Highly flammable liquid and vapour.

5.1. Extinguishing media

Suitable extinguishing media

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture Vapours may form explosive mixtures with air. Vapours may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do

so without risk

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures For non-emergencyWear appropriate protective equipment and cl

personnel

Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

For emergency responders

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid breathing mist/vapours. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe vapour. Do not get this material in contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBI. II, no. 184/2001

Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	MAK	150 mg/m3	
		50 ppm	
	STEL	600 mg/m3	
		200 ppm	
Butyl acetate (CAS 123-86-4)	Ceiling	480 mg/m3	
		100 ppm	
	MAK	241 mg/m3	
		100 ppm	
Ethyl alcohol (CAS 64-17-5)	Ceiling	3800 mg/m3	
		2000 ppm	
	MAK	1900 mg/m3	

Material name: Dykem® Transparent Stain - Steel Blue (Bulk)

Austria. MAK List, OEL Ordinance (G Components	Туре	Value	
		1000 ppm	
Isopropanol (CAS 67-63-0)	MAK	500 mg/m3	
		200 ppm	
	STEL	2000 mg/m3	
		800 ppm	
Propyl acetate (CAS 109-60-4)	Ceiling	420 mg/m3	
		100 ppm	
	MAK	420 mg/m3	
		100 ppm	
Belgium. Exposure Limit Values			
Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	TWA	62 mg/m3	
		20 ppm	
Butyl acetate (CAS 123-86-4)	STEL	712 mg/m3	
		150 ppm	
	TWA	238 mg/m3	
		50 ppm	
Ethyl alcohol (CAS 64-17-5)	TWA	1907 mg/m3	
		1000 ppm	
	OTEL	1000 / 2	
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3	

500 mg/m3

1055 mg/m3

200 ppm

250 ppm

Components	Туре	Value	
Bulgaria. OELs. Regulation No	13 on protection of workers ag	ainst risks of exposure to chemical agents	at work
		200 ppm	
	TWA	847 mg/m3	

TWA

STEL

	- 710-0		
Butanol Normal (CAS 71-36-3)	STEL	150 mg/m3	
	TWA	100 mg/m3	
Butyl acetate (CAS 123-86-4)	STEL	950 mg/m3	
	TWA	710 mg/m3	
Ethyl alcohol (CAS 64-17-5)	TWA	1000 mg/m3	
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3	
	TWA	980 mg/m3	

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09 Components Type Value

Butanol Normal (CAS 71-36-3)	STEL	154 mg/m3	
		50 ppm	
Butyl acetate (CAS 123-86-4)	MAC	241 mg/m3	
		50 ppm	
	STEL	723 mg/m3	

Propyl acetate (CAS 109-60-4)

Croatia. Dangerous Substance Exp Components	Type	Value
		150 ppm
Ethyl alcohol (CAS 64-17-5)	MAC	1900 mg/m3
		1000 ppm
Isopropanol (CAS 67-63-0)	MAC	999 mg/m3
		400 ppm
	STEL	1250 mg/m3
		500 ppm
Propyl acetate (CAS 109-60-4)	MAC	849 mg/m3
		200 ppm
	STEL	1060 mg/m3
		250 ppm
Cyprus. OELs. Control of factory a Components	tmosphere and dangerous su Type	bstances in factories regulation, PI 311/73, as amende Value
Butanol Normal (CAS	TWA	150 mg/m3
71-36-3)		-
-		50 ppm
Butyl acetate (CAS 123-86-4)	TWA	710 mg/m3
		150 ppm
Isopropanol (CAS 67-63-0)	TWA	980 mg/m3
		400 ppm
Propyl acetate (CAS 109-60-4)	TWA	840 mg/m3
109-00-4)		000
*		200 ppm
Czech Republic. OELs. Governmer	nt Decree 361 Type	200 ppm Value
Czech Republic. OELs. Governmer Components Butanol Normal (CAS		**
Czech Republic. OELs. Governmer Components Butanol Normal (CAS	Type Ceiling	Value 600 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3)	Type Ceiling TWA	Value 600 mg/m3 300 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS	Type Ceiling	Value 600 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS	Type Ceiling TWA	Value 600 mg/m3 300 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4)	Type Ceiling TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4)	Type Ceiling TWA Ceiling TWA	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5)	Type Ceiling TWA Ceiling TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5)	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4)	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 1000 mg/m3 500 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA TWA	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 800 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Type	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 500 mg/m3 Value 150 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS 71-36-3)	Type Ceiling TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 1000 mg/m3 1000 mg/m3 1000 mg/m3 1000 mg/m3 1000 mg/m3 500 mg/m3 500 ppm
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS	Type Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Ceiling TWA Type	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 500 mg/m3 Value 150 mg/m3 50 ppm 710 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4)	Type Ceiling TWA Type Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 1000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 Value 150 mg/m3 50 ppm 710 mg/m3 150 ppm
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4)	Type Ceiling TWA Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 500 mg/m3 Value 150 mg/m3 50 ppm 710 mg/m3 150 ppm 1900 mg/m3
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5)	Type Ceiling TWA Type Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 500 mg/m3 Value 150 mg/m3 50 ppm 710 mg/m3 150 ppm 1900 mg/m3 1000 ppm
Czech Republic. OELs. Governmer Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Denmark. Exposure Limit Values Components Butanol Normal (CAS 71-36-3) Butyl acetate (CAS 123-86-4)	Type Ceiling TWA Type Ceiling	Value 600 mg/m3 300 mg/m3 1200 mg/m3 950 mg/m3 3000 mg/m3 1000 mg/m3 500 mg/m3 1000 mg/m3 500 mg/m3 Value 150 mg/m3 50 ppm 710 mg/m3 150 ppm 1900 mg/m3

Denmark. Exposure Limit Values Components	Туре	Value
Propyl acetate (CAS 109-60-4)	TLV	625 mg/m3
		150 ppm
		bstances (Regulation No. 105/2001, Annex), as amended
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	STEL	90 mg/m3
		30 ppm
	TWA	45 mg/m3
		15 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
		1000 ppm
	TWA	1000 mg/m3
		500 ppm
lsopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3
		150 ppm
Finland. Workplace Exposure Lim	its	
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	STEL	230 mg/m3
		75 ppm
	TWA	150 mg/m3
		50 ppm
Butyl acetate (CAS 123-86-4)	STEL	725 mg/m3
		150 ppm

Butanol Normal (CAS 71-36-3)	STEL	230 mg/m3
		75 ppm
	TWA	150 mg/m3
		50 ppm
Butyl acetate (CAS 123-86-4)	STEL	725 mg/m3
		150 ppm
	TWA	240 mg/m3
		50 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	2500 mg/m3
		1300 ppm
	TWA	1900 mg/m3
		1000 ppm
Isopropanol (CAS 67-63-0)	STEL	620 mg/m3
		250 ppm
	TWA	500 mg/m3
		200 ppm
Propyl acetate (CAS 109-60-4)	STEL	850 mg/m3
		200 ppm
	TWA	420 mg/m3
		100 ppm
France Threshold Limit Values (VI	ED) for Occupational Expos	ure to Chemicals in France INRS FD 984

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984
Components Type Value

Butanol Normal (CAS VLE 150 mg/m3
71-36-3)

Regulatory status: Indicative limit (VL)

50 ppm

Regulatory status: Indicative limit (VL)

Components	Type	sure to Chemicals in France, INRS ED 984 Value	
Butyl acetate (CAS 123-86-4)	VLE	940 mg/m3	
Regulatory status:	Indicative limit (VL)		
		200 ppm	
Regulatory status:	Indicative limit (VL)		
	VME	710 mg/m3	
Regulatory status:	Indicative limit (VL)		
		150 ppm	
Regulatory status:	Indicative limit (VL)		
Ethyl alcohol (CAS 64-17-	-5) VLE	9500 mg/m3	
Regulatory status:	Indicative limit (VL)		
- •		5000 ppm	

Regulatory status: Indicative limit (VL)

VME 1900 mg/m3

Regulatory status: Indicative limit (VL)

1000 ppm

Regulatory status: Indicative limit (VL) Isopropanol (CAS 67-63-0) VL

VLE 980 mg/m3

Regulatory status: Indicative limit (VL)

400 ppm

Regulatory status: Indicative limit (VL)
Propyl acetate (CAS

VME 840 mg/m3

109-60-4)

Regulatory status: Indicative limit (VL)

200 ppm

Regulatory status: Indicative limit (VL)

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	TWA	310 mg/m3	
		100 ppm	
Butyl acetate (CAS 123-86-4)	TWA	480 mg/m3	
		100 ppm	
Ethyl alcohol (CAS 64-17-5)	TWA	380 mg/m3	
		200 ppm	
Isopropanol (CAS 67-63-0)	TWA	500 mg/m3	
		200 ppm	
Propyl acetate (CAS 109-60-4)	TWA	420 mg/m3	
		100 ppm	
Germany. TRGS 900, Limit Values	in the Ambient Air at the Wo	kplace	
Components	Туре	Value	
Butanol Normal (CAS	AGW	310 mg/m3	

Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	AGW	310 mg/m3	
		100 ppm	
Butyl acetate (CAS 123-86-4)	AGW	300 mg/m3	
		62 ppm	
Ethyl alcohol (CAS 64-17-5)	AGW	380 mg/m3	
		200 ppm	
Isopropanol (CAS 67-63-0)	AGW	500 mg/m3	

		200 ppm
Greece. OELs (Decree No. 90/1999	. as amended)	
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	STEL	300 mg/m3
		100 ppm
	TWA	300 mg/m3
		100 ppm
Butyl acetate (CAS 123-86-4)	STEL	950 mg/m3
		200 ppm
	TWA	710 mg/m3
		150 ppm
Ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3
		1000 ppm
Isopropanol (CAS 67-63-0)	STEL	1225 mg/m3
		500 ppm
	TWA	980 mg/m3
		400 ppm
Propyl acetate (CAS 109-60-4)	STEL	1050 mg/m3
,		250 ppm
	TWA	840 mg/m3
		200 ppm
Hungary. OELs. Joint Decree on C	homical Safoty of Workplaces	
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	STEL	90 mg/m3
	TWA	45 mg/m3
Butyl acetate (CAS 123-86-4)	STEL	723 mg/m3
	TWA	241 mg/m3
Ethyl alcohol (CAS 64-17-5)	STEL	3800 mg/m3
	TWA	1900 mg/m3
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
	TWA	500 mg/m3
Propyl acetate (CAS 109-60-4)	STEL	840 mg/m3
	TWA	420 mg/m3
Iceland. OELs. Regulation 154/199 Components	9 on occupational exposure lin Type	nits Value
Butanol Normal (CAS	STEL	150 mg/m3
71-36-3)		50 ppm
	TWA	80 mg/m3
		25 ppm
Butyl acetate (CAS 123-86-4)	TWA	700 mg/m3
,		150 ppm
Ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3
, (1000 ppm
Isopropanol (CAS 67-63-0)	TWA	490 mg/m3

Components	on occupational exposure li Type	Value
	••	200 ppm
Propyl acetate (CAS	TWA	625 mg/m3
109-60-4)		ozo mg, mo
		150 ppm
Ireland. Occupational Exposure Lin		
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	TWA	20 ppm
Butyl acetate (CAS	STEL	950 mg/m3
123-86-4)		200 ppm
	TWA	710 mg/m3
		150 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
Isopropanol (CAS 67-63-0)	STEL	400 ppm
30p. spanier (3.12 cr. 30 d)	TWA	200 ppm
Propyl acetate (CAS	STEL	150 ppm
109-60-4)	- · 	· re…
	TWA	100 ppm
Italy. Occupational Exposure Limits		
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	TWA	20 ppm
Butyl acetate (CAS 123-86-4)	STEL	723 mg/m3
		150 ppm
	TWA	241 mg/m3
		50 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1000 ppm
sopropanol (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
Propyl acetate (CAS 109-60-4)	STEL	150 ppm
	TWA	100 ppm
Latvia. OELs. Occupational exposu Components	re limit values of chemical so Type	ubstances in work environment Value
Butanol Normal (CAS	TWA	10 mg/m3
71-36-3) Butyl acetate (CAS	STEL	723 mg/m3
123-86-4)		150 ppm
	TWA	241 mg/m3
		50 ppm
Ethyl alcohol (CAS 64-17-5)	TWA	1000 mg/m3
sopropanol (CAS 67-63-0)	STEL	600 mg/m3
	TWA	350 mg/m3
Propyl acetate (CAS 109-60-4)	TWA	200 mg/m3
Lithuania. OELs. Limit Values for C Components		al Requirements Value
	Type	
Butanol Normal (CAS 71-36-3)	Ceiling	90 mg/m3
,		30 ppm

Components	Chemical Substances, Genera Type	Value
	TWA	45 mg/m3
		15 ppm
Butyl acetate (CAS 123-86-4)	STEL	723 mg/m3
		150 ppm
	TWA	241 mg/m3
		50 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
		1000 ppm
	TWA	1000 mg/m3
		500 ppm
sopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3
		150 ppm
Propyl acetate (CAS 109-60-4)	STEL	800 mg/m3
		200 ppm
	TWA	420 mg/m3
		100 ppm
Luxembourg. Binding Occupation	al exposure limit values (Anne	ex I), Memorial A
Components	Туре	Value
Butyl acetate (CAS 123-86-4)	STEL	723 mg/m3
		150 ppm
Netherlands. OELs (binding)		
Components	Туре	Value
Ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
	TWA	260 mg/m3
Norway. Administrative Norms for	Contaminants in the Workpla	ce
Components	Туре	Value
	Ceiling	75 mg/m3
	Ceiling	-
71-36-3)	-	25 ppm
71-36-3)	Ceiling TLV	25 ppm 950 mg/m3
71-36-3) Ethyl alcohol (CAS 64-17-5)	TLV	25 ppm 950 mg/m3 500 ppm
71-36-3) Ethyl alcohol (CAS 64-17-5)	-	25 ppm 950 mg/m3 500 ppm 245 mg/m3
71-36-3) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0)	TLV TLV	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm
Butanol Normal (CAS 71-36-3) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4)	TLV	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3
71-36-3) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS	TLV TLV	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm
71-36-3) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister concentrations and intensities of h	TLV TLV TLV of Labour and Social Policy of Labour health factors in the w	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm in 6 June 2014 on the maximum permissible vork environment, Journal of Laws 2014, item 817
Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister concentrations and intensities of h	TLV TLV TLV of Labour and Social Policy of narmful health factors in the w	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm in 6 June 2014 on the maximum permissible fork environment, Journal of Laws 2014, item 817 Value
Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister concentrations and intensities of homeonents Butanol Normal (CAS	TLV TLV TLV of Labour and Social Policy of Labour health factors in the w	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm in 6 June 2014 on the maximum permissible vork environment, Journal of Laws 2014, item 817 Value 150 mg/m3
Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister concentrations and intensities of homeonents Butanol Normal (CAS	TLV TLV of Labour and Social Policy of harmful health factors in the water than the water that water than the water that the	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm n 6 June 2014 on the maximum permissible rork environment, Journal of Laws 2014, item 817 Value 150 mg/m3 0 ppm
Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister concentrations and intensities of homeonents Butanol Normal (CAS	TLV TLV TLV of Labour and Social Policy of narmful health factors in the w	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm in 6 June 2014 on the maximum permissible vork environment, Journal of Laws 2014, item 817 Value 150 mg/m3
T1-36-3) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister concentrations and intensities of homeonents Butanol Normal (CAS 71-36-3)	TLV TLV TLV of Labour and Social Policy of harmful health factors in the water than the water that the water than the water that the water than the water that the water	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm In 6 June 2014 on the maximum permissible prork environment, Journal of Laws 2014, item 817 Value 150 mg/m3 0 ppm 50 mg/m3 0 ppm
71-36-3) Ethyl alcohol (CAS 64-17-5) Isopropanol (CAS 67-63-0) Propyl acetate (CAS 109-60-4) Poland. Ordinance of the Minister	TLV TLV of Labour and Social Policy of harmful health factors in the water than the water that water than the water that the	25 ppm 950 mg/m3 500 ppm 245 mg/m3 100 ppm 420 mg/m3 100 ppm In 6 June 2014 on the maximum permissible work environment, Journal of Laws 2014, item 817 Value 150 mg/m3 0 ppm 50 mg/m3

Poland. Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Components	Туре	Value	
	TWA	240 mg/m3	
		0 ppm	
Ethyl alcohol (CAS 64-17-5)	TWA	1900 mg/m3	
		0 ppm	
Isopropanol (CAS 67-63-0)	STEL	1200 mg/m3	
		0 ppm	
	TWA	900 mg/m3	
		0 ppm	
Propyl acetate (CAS 109-60-4)	STEL	400 mg/m3	
		0 ppm	
	TWA	200 mg/m3	
		0 ppm	
Portugal. OELs. Decree-Law n. 29	0/2001 (Journal of the Republ	ic - 1 Series A, n.266)	
Components	Туре	Value	
Butyl acetate (CAS 123-86-4)	STEL	723 mg/m3	
		150 ppm	
	TWA	241 mg/m3	
		50 ppm	
Portugal. VLEs. Norm on occupat			
Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	TWA	20 ppm	
Butyl acetate (CAS 123-86-4)	STEL	200 ppm	
	TWA	150 ppm	
Ethyl alcohol (CAS 64-17-5)	TWA	1000 ppm	
Isopropanol (CAS 67-63-0)	STEL	400 ppm	
	TWA	200 ppm	
Propyl acetate (CAS 109-60-4)	STEL	250 ppm	
	TWA	200 ppm	
Romania. OELs. Protection of wor Components	kers from exposure to chemi Type	cal agents at the workplace Value	
Butanol Normal (CAS 71-36-3)	STEL	200 mg/m3	
		66 ppm	
	TWA	100 mg/m3	
		33 ppm	
Butyl acetate (CAS 123-86-4)	STEL	950 mg/m3	
		200 ppm	
	TWA	715 mg/m3	
		150 ppm	
Ethyl alcohol (CAS 64-17-5)	STEL	9500 mg/m3	
		5000 ppm	
	TWA	1900 mg/m3	
		1000 ppm	
Isopropanol (CAS 67-63-0)	STEL	500 mg/m3	
•		203 ppm	
		• •	

Romania. OELs. Protection of	f workers from exposure to chemical	agents at the workplace
0	T	V-I

Components	Туре	Value	
	TWA	200 mg/m3	
		81 ppm	
Propyl acetate (CAS 109-60-4)	STEL	600 mg/m3	
		144 ppm	
	TWA	400 mg/m3	
		96 ppm	

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

-		Туре	Components
g/m3		TWA	Butanol Normal (CAS 71-36-3)
m			
g/m3		STEL	Butyl acetate (CAS 123-86-4)
m			
g/m3		TWA	
1			
ng/m3		STEL	Ethyl alcohol (CAS 64-17-5)
pm			
g/m3		TWA	
m			
ng/m3		STEL	Isopropanol (CAS 67-63-0)
m			
g/m3		TWA	
m			
g/m3		STEL	Propyl acetate (CAS 109-60-4)
m			
g/m3		TWA	
m			
pp	workers aga		Slovenia OELs Pegulations cons

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	TWA	310 mg/m3	
		100 ppm	
Butyl acetate (CAS 123-86-4)	TWA	300 mg/m3	
		62 ppm	
Ethyl alcohol (CAS 64-17-5)	TWA	960 mg/m3	
		500 ppm	
Isopropanol (CAS 67-63-0)	TWA	500 mg/m3	
		200 ppm	
Spain. Occupational Exposure Lin	nits		
Components	Туре	Value	
Butanol Normal (CAS 71-36-3)	STEL	154 mg/m3	
		50 ppm	
	TWA	61 mg/m3	
		20 ppm	
Butyl acetate (CAS 123-86-4)	STEL	965 mg/m3	

Spain. Occupational Exposure Limits		
Components	Туре	Value
		200 ppm
	TWA	724 mg/m3
		150 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1910 mg/m3
		1000 ppm
Isopropanol (CAS 67-63-0)	STEL	1000 mg/m3
		400 ppm
	TWA	500 mg/m3
		200 ppm
Propyl acetate (CAS	STEL	1060 mg/m3
109-60-4)		
		250 ppm
	TWA	849 mg/m3
		200 ppm
Sweden. OELs. Work Environment Aut	hority (AV), Occupational Exposure	Limit Values (AFS 2015:7)
Components	Туре	Value
Butanol Normal (CAS 71-36-3)	Ceiling	90 mg/m3
71-30-3)		30 ppm
	TWA	45 mg/m3
		15 ppm
Butyl acetate (CAS	STEL	700 mg/m3
123-86-4)		-
		150 ppm
	TWA	500 mg/m3
		100 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1900 mg/m3
		1000 ppm
	TWA	1000 mg/m3
		500 ppm
Isopropanol (CAS 67-63-0)	STEL	600 mg/m3
		250 ppm
	TWA	350 mg/m3
		150 ppm
Switzerland. SUVA Grenzwerte am Arbe	eitsplatz	
Components	Туре	Value
Butanol Normal (CAS	STEL	310 mg/m3
71-36-3)		100 ppm
	TWA	
	TWA	310 mg/m3
Double (OAO	OTEL	100 ppm
Butyl acetate (CAS 123-86-4)	STEL	720 mg/m3
		150 ppm
	TWA	240 mg/m3
		50 ppm
Ethyl alcohol (CAS 64-17-5)	STEL	1920 mg/m3
		1000 ppm
	TWA	960 mg/m3
	TWA	960 mg/m3 500 ppm

Switzerland. SUVA Grenze Components	Тур		V	alue	
<u> </u>				00 ppm	
	TW	Δ		00 mg/m3	
				00 ppm	
Propyl acetate (CAS	STE	:1		40 mg/m3	
109-60-4)	012		9	To mg/mo	
			2	00 ppm	
	TW	A	4.	20 mg/m3	
			1	00 ppm	
UK. EH40 Workplace Expe	osure Limits (WELs)				
Components	Тур	е	V	alue	
Butanol Normal (CAS 71-36-3)	STE	EL	1	54 mg/m3	
,			5	O ppm	
Butyl acetate (CAS	STE	EL		66 mg/m3	
123-86-4)			2	00 ppm	
	TW	Δ		24 mg/m3	
	1 447	•		50 ppm	
Ethyl alcohol (CAS 64-17-5) TW	Δ		920 mg/m3	
	,			000 ppm	
Isopropanol (CAS 67-63-0)	STE	:I		250 mg/m3	
	012			00 ppm	
	TW	Α		99 mg/m3	
				00 ppm	
Propyl acetate (CAS 109-60-4)	STE	EL		060 mg/m3	
100 00 4)			2	50 ppm	
	TW	Ą		49 mg/m3	
				00 ppm	
FIL Indicative Evnosure I	imit Values in Directi	vas 91/322/FFC		6/15/EC, 2009/161/EU, 2017/1	64/EII
Components	Тур			alue	0-1/2-0
Butyl acetate (CAS 123-86-4)	STE	EL	7.	23 mg/m3	
120 00-4)			1:	50 ppm	
	TW	Ą		41 mg/m3	
				O ppm	
ogical limit values				• •	
Croatia. BLV. Dangerous Components	Substance Exposure Value	Limit Values at Determinant		xes 4 (as amended) Sampling Time	
Isopropanol (CAS 67-63-0)	50 mg/l	Acetone	Urine	*	
(= 1 = 1 = 1 = 1 = 1 = 1	50 mg/l	Acetone	Blood	*	
	· · · · · · · · · · · · · · · · · ·				
	0,86 umol/l	Acetone	Urine	*	

Material name: Dykom®	T	O(D (D)

Components

71-36-3)

Butanol Normal (CAS

* - For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

Value

2 mg/g

10 mg/g

Determinant

1-Butanol

Hydrolyse)

1-Butanol

Hydrolyse)

(nach

(nach

Specimen

urine

urine

Creatinine in

Creatinine in

Sampling Time

Components	Value	Determinant	Specimen	Sampling Time
Isopropanol (CAS 67-63-0)	25 mg/l	ACETON	Urine	*
	25 mg/l	ACETON	Blood	*

^{* -} For sampling details, please see the source document.

Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices

Components	, Value	Determinant	Specimen	Sampling Time
Butanol Normal (CAS 71-36-3)	3 μmol/mmol	n-butyl alcohol (with hydrolysis)	Creatinine in urine	*
	15 μmol/mmol	n-butyl alcohol (with hydrolysis)	Creatinine in urine	*
	2 mg/g	n-butyl alcohol (with hydrolysis)	Creatinine in urine	*
	10 mg/g	n-butyl alcohol (with hydrolysis)	Creatinine in urine	*
Isopropanol (CAS 67-63-0)	25 μg/l	Acetone	Urine	*
	430 µmol/l	Acetone	Urine	*

^{* -} For sampling details, please see the source document.

Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2

Components	Value	Determinant	Specimen	Sampling Time	
Butanol Normal (CAS 71-36-3)	2 mg/g	N-Butyl Alcohol	Creatinine in urine	*	
	10 mg/g	N-Butyl Alcohol	Creatinine in	*	

^{* -} For sampling details, please see the source document.

Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4					
Components	Value	Determinant	Specimen	Sampling Time	
Isopropanol (CAS 67	7-63-0) 40 mg/l	Acetona	Urine	*	

^{* -} For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)							
Components	Value	Determinant	Specimen				
Butanol Normal (CAS 71-36-3)	2 mg/g	n-Butanol	Creatinine in urine				
	10 mg/g	n-Butanol	Creatinine in urine	*			
Isopropanol (CAS 67-63-0)	25 mg/l	ACETON	Urine	*			
	25 mg/l	ACETON	Blood	*			

^{* -} For sampling details, please see the source document.

Recommended monitoring procedures

Follow standard monitoring procedures.

Derived no effect levels

(DNELs)

Not available.

Predicted no effect concentrations (PNECs)

Not available.

8.2. Exposure controls

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Skin protection

Chemical respirator with organic vapour cartridge and full facepiece.

- Hand protection Wear appropriate chemical resistant gloves.

Wear suitable protective clothing. - Other

Respiratory protection Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using do not smoke. Always observe good personal hygiene measures, such as washing

after handling the material and before eating, drinking, and/or smoking. Routinely wash work

clothing and protective equipment to remove contaminants.

Environmental exposure

controls

Inform appropriate managerial or supervisory personnel of all environmental releases. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid. Liquid. **Form** Colour Blue

Sweet, Solvent, Odour Melting point/freezing point Not available.

Boiling point or initial boiling

76,67 - 125 °C (170 - 257 °F)

point and boiling range

Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits

Flammability limit - lower

1,4 %

Flammability limit - upper

19 %

(%)

11,7 °C (53,0 °F) Flash point Not available. **Auto-ignition temperature** Not available. **Decomposition temperature** Not available. pН

Solubility(ies)

Negligible Solubility (water) Not available. **Partition coefficient**

(n-octanol/water)

Vapour pressure Not available. > 1 (air = 1)Vapour density Relative density Not available. **Particle characteristics** Not available.

Other safety characteristics

< 1 (BuAc = 1)**Evaporation rate** Not explosive. **Explosive properties Oxidising properties** Not oxidising VOC 93,24%, 790 g/L

SECTION 10: Stability and reactivity

10.1. Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid 10.4. Conditions to avoid

temperatures exceeding the flash point. Contact with incompatible materials.

10.5. Incompatible materials Strong oxidising agents. Alkali metals. Nitrates.

10.6. Hazardous Carbon oxides.

decomposition products

Material name: Dykem® Transparent Stain - Steel Blue (Bulk)

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation May cause drowsiness or dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be

harmful.

Skin contact No adverse effects due to skin contact are expected.

Eye contact Causes serious eye damage.

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of

occupational exposure.

Symptoms May cause drowsiness or dizziness. Headache. Nausea, vomiting. Severe eye irritation.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye

damage including blindness could result. Coughing.

11.1. Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Components Species Test Results

Puthly appeted (CAS 422 96 4)

Butyl acetate (CAS 123-86-4)

<u>Acute</u>

Inhalation

LC50 Rat > 21 mg/l, 4 Hours

Oral

LD50 Rat 14000 mg/kg

Ethyl alcohol (CAS 64-17-5)

<u>Acute</u>

Inhalation Vapour

LC50 Rat 51 mg/l, 6 Hours

Isopropanol (CAS 67-63-0)

Acute

Inhalation

LC50 - 51 mg/l, 8 Hours

Oral

LD50 Rat 4,7 g/kg

Propyl acetate (CAS 109-60-4)

<u>Acute</u>

Dermal

LD50 Rabbit > 18000 mg/kg, 24 Hours

Inhalation

Vapour

LC50 Rat 32 mg/l, 4 Hours

Oral

LD50 Rat 8700 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory sensitisation

Not a respiratory sensitizer.

Skin sensitisation

Germ cell mutagenicity

This product is not expected to cause skin sensitisation.

Chilean Spanish went out in Job 18-0024189, French and German were reviewed under

17-0023466 and Hindi under 17-0023485

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens

Isopropanol (CAS 67-63-0)

Not classifiable as a human carcinogen. A4

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicityThis product is not expected to cause reproductive or developmental effects.

Material name: Dykem® Transparent Stain - Steel Blue (Bulk)

SDS EU

Specific target organ toxicity -

single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard
Mixture versus substance

information

Not an aspiration hazard.

No information available.

11.2. Information on other hazards

Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects. Based on available data, the classification criteria

are not met for hazardous to the aquatic environment, acute hazard.

Components Species Test Results

Basic Violet 1 (CAS 8004-87-3)

Aquatic

Acute

Fish LC50 Fathead minnow (Pimephales promelas) 0,047 mg/l, 96 hours

Butanol Normal (CAS 71-36-3)

Aquatic

Acute

Crustacea

EC50 Water flea (Daphnia magna) 1897 - 2072 mg/l, 48 hours

Fish LC50 Bluegill (Lepomis macrochirus)

100 - 500 mg/l, 96 hours

Butyl acetate (CAS 123-86-4)

Aquatic

Acute

Fish LC50 Fathead minnow (Pimephales promelas) 17 - 19 mg/l, 96 hours

Ethyl alcohol (CAS 64-17-5)

Aquatic

Acute

Crustacea EC50 Water flea (Daphnia magna) 7,7 - 11,2 mg/l, 48 hours

Fish LC50 Rainbow trout, donaldson trout

42 mg/l, 4 days

(Oncorhynchus mykiss)

Isopropanol (CAS 67-63-0)

Aquatic

Acute

Fish LC50 Bluegill (Lepomis macrochirus) > 1400 mg/l, 96 hours

Malachite Green Oxalate (CAS 2437-29-8)

Aquatic

Acute

Fish LC50 Channel catfish (Ictalurus punctatus) 0,14 mg/l, 96 hours

Propyl acetate (CAS 109-60-4)

Aquatic

Acute

Fish LC50 Fathead minnow (Pimephales promelas) 56 - 64 mg/l, 96 hours

12.2. Persistence and

degradability

No data is available on the degradability of any ingredients in the mixture.

12.3. Bioaccumulative potential

Partition coefficient

n-octanol/water (log Kow)

 Butanol Normal
 0,88

 Butyl acetate
 1,78

 Ethyl alcohol
 -0,31

 Isopropanol
 0,05

 Propyl acetate
 1,24

Not available. **Bioconcentration factor (BCF)** 12.4. Mobility in soil Not established.

12.5. Results of PBT and vPvB

assessment

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow Disposal methods/information

this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

with chemical or used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number

UN1263

14.2. UN proper shipping

PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

(vapour pressure at 50 °C more than

110 kPa)

14.3. Transport hazard class(es)

Class 3 Subsidiary risk 3 Label(s) Hazard No. (ADR) 33 **Tunnel restriction code** D/E Ш 14.4. Packing group 14.5. Environmental hazards Yes

14.6. Special precautions

Read safety instructions, SDS and emergency procedures before handling.

for user

name

RID

14.1. UN number UN1263

14.2. UN proper shipping

PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid

lacquer base) or PAINT RELATED MATERIAL (vapour pressure at 50 °C not more than 110 kPa)

14.3. Transport hazard class(es)

3 **Class** Subsidiary risk 3 Label(s) 14.4. Packing group Ш 14.5. Environmental hazards Yes

14.6. Special precautions

Read safety instructions, SDS and emergency procedures before handling.

for user

ADN

14.1. UN number UN1263

14.2. UN proper shipping PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

name

14.3. Transport hazard class(es) 3 Class Subsidiary risk 3 Label(s) 14.4. Packing group Ш 14.5. Environmental hazards Yes 14.6. Special precautions

Read safety instructions, SDS and emergency procedures before handling.

for user

IATA

UN1263 14.1. UN number

Paint related material (including paint thinning or reducing compounds) 14.2. UN proper shipping

name

14.3. Transport hazard class(es)

Class 3 Subsidiary risk Ш 14.4. Packing group 14.5. Environmental hazards Yes **ERG Code**

14.6. Special precautions

for user

Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo Allowed with restrictions.

aircraft

Allowed with restrictions. Cargo aircraft only

IMDG

14.1. UN number UN1263

14.2. UN proper shipping

name

PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound),

MARINE POLLUTANT

14.3. Transport hazard class(es)

Class Subsidiary risk Ш 14.4. Packing group 14.5. Environmental hazards Marine pollutant Yes

EmS F-E, S-E

14.6. Special precautions for user

Basic Violet 1

Read safety instructions, SDS and emergency procedures before handling.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

ADN; ADR; IATA; IMDG; RID



Marine pollutant



IMDG Regulated Marine Pollutant. **General information**

SECTION 15: Regulatory information

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

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed

EU Regulation 648/2004, Annex VII, Content Labeling for Detergents

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Butanol Normal (CAS 71-36-3)

Butyl acetate (CAS 123-86-4)

Cellulose Nitrate (CAS 9004-70-0)

Ethyl alcohol (CAS 64-17-5)

Isopropanol (CAS 67-63-0)

Malachite Green Oxalate (CAS 2437-29-8)

Propyl acetate (CAS 109-60-4)

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP

Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation

(EC) No 1907/2006, as amended.

National regulations Follow national regulation for work with chemical agents in accordance with Directive 98/24/EC, as

amended.

15.2. Chemical safety

assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert - Germany).

CAS: Chemical Abstract Service.

CEN: European Committee for Standardization. IATA: International Air Transport Association.

IBC Code: International Code for the Construction and Equipment of Ships Carrying Dangerous

Chemicals in Bulk.

IMDG: International Maritime Dangerous Goods.

MAC: Maximum Allowed Concentration.

MARPOL: International Convention for the Prevention of Pollution from Ships.

PBT: Persistent, bioaccumulative and toxic.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

STEL: Short term exposure limit. TLV: Threshold Limit Value. TWA: Time Weighted Average. VLE: Exposure Limit Value. VME: Exposure Average Value.

vPvB: Very persistent and very bioaccumulative.

References

Information on evaluation method leading to the classification of mixture

Full text of any H-statements not written out in full under Sections 2 to 15 Not available.

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation. H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Composition / Information on Ingredients: Disclosure Overrides

Physical & Chemical Properties: Multiple Properties

Follow training instructions when handling this material.

Disclaimer

Revision information

Training information

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. ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.