

SAFETY DATA SHEET

Version #: 04

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

1.1. Product identifier

Trade name or designation of the mixture Insulcast RTVS Primer 44

Registration number -

Synonyms None.

SKU# IS155R

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

Identified uses Not available.

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company Name ITW Performance Polymers

Address Bay 150
Shannon Industrial Estate
Co. Clare
Ireland
V14 DF82

Contact Person Customer Service

Telephone Number 353(61)771500
353(61)471285

Email customerservice.shannon@itwpp.com

Emergency Phone Number 44(0) 1235 239 670 (24 hours)

1.4. Emergency telephone number

General in EU 112 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Austria National Poisons Information Center +431 406 4343 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Belgium National Poisons Control Center 070 245 245 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Bulgaria National Toxicological Information Center +359 2 9154 233 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Croatia Poisons Information Center +385 1 2348 342 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Cyprus Poison Center 1401 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Czech Republic National Poisons Information Center +420 224 919 293, or +420 224 915 402 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)

Denmark National Poisons Control Center +45 82 12 12 12 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

Estonia National Poisons Information Center 16662 or abroad: (+372) 626 9390 (Monday 9:00AM to Saturday 9:00AM (closed on Sundays and on national holidays). SDS/Product information may not be available for the Emergency Service.)

Finland National Poison Information Center (09) 471 977 (direct) or (09) 4711 (exchange) (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

France National Poisons Control Center ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

1.4. Emergency telephone number

Greece Poison Information Centre	(0030) 2107793777 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Hungary National Emergency Phone Number	+36-80-201-199 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Iceland Poison Center	(+354) 543 2222 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Latvia Emergency medical aid	113
Latvia Poison and Drug Information Center	+371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Lithuania Neatidėliotina informacija apsinuodijus	+370 5 236 20 52 or +37068753378 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Malta Accident and Emergency Department	2545 4030 (Hours of operation not provided. SDS/Product information may not be available for the Emergency Service.)
Netherlands National Poisons Information Center (NVIC)	NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)
Norway Norwegian Poison Information Center	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Portugal Poison Center	800 250 250 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Romania Biroul RSI si Informare Toxicologica	021.318.36.06 (Available 8:00AM-3:00PM. SDS/Product information may not be available for the Emergency Service.)
Slovakia National Toxicological Information Center	+421 2 5477 4166 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Spain Toxicology Information Service	+ 34 91 562 04 20 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Sweden National Poison Information Center	112 - and ask for Poison Information (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Switzerland Tox Info Suisse	145 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)

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 vapor.
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Health hazards

Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Germ cell mutagenicity	Category 1B	H340 - May cause genetic defects.
Carcinogenicity	Category 1B	H350 - May cause cancer.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.
Aspiration hazard	Category 1	H304 - May be fatal if swallowed and enters airways.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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2.2. Label elements

UFI:

Austria: VK45-X1MV-600Y-JEUR
 Belgium: VK45-X1MV-600Y-JEUR
 Bulgaria: VK45-X1MV-600Y-JEUR
 Croatia: VK45-X1MV-600Y-JEUR
 Cyprus: VK45-X1MV-600Y-JEUR
 Czech Republic: VK45-X1MV-600Y-JEUR
 Denmark: VK45-X1MV-600Y-JEUR
 Estonia: VK45-X1MV-600Y-JEUR
 EU: VK45-X1MV-600Y-JEUR
 Finland: VK45-X1MV-600Y-JEUR
 France: VK45-X1MV-600Y-JEUR
 Germany: VK45-X1MV-600Y-JEUR
 Greece: VK45-X1MV-600Y-JEUR
 Hungary: VK45-X1MV-600Y-JEUR
 Iceland: VK45-X1MV-600Y-JEUR
 Ireland: VK45-X1MV-600Y-JEUR
 Italy: VK45-X1MV-600Y-JEUR
 Latvia: VK45-X1MV-600Y-JEUR
 Lithuania: VK45-X1MV-600Y-JEUR
 Luxembourg: VK45-X1MV-600Y-JEUR
 Malta: VK45-X1MV-600Y-JEUR
 Netherlands: VK45-X1MV-600Y-JEUR
 Norway: VK45-X1MV-600Y-JEUR
 Poland: VK45-X1MV-600Y-JEUR
 Portugal: VK45-X1MV-600Y-JEUR
 Romania: VK45-X1MV-600Y-JEUR
 Slovakia: VK45-X1MV-600Y-JEUR
 Slovenia: VK45-X1MV-600Y-JEUR
 Spain: VK45-X1MV-600Y-JEUR
 Sweden: VK45-X1MV-600Y-JEUR

Contains:

butan-1-ol; n-butanol, Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in, tetraethyl silicate; ethyl silicate

Hazard pictograms



Signal word

Danger

Hazard statements

H225	Highly flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P235	Keep cool.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing mist/vapors.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
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P331	Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use appropriate media to extinguish.
P391	Collect spillage.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Supplemental label information 65,5% of the mixture consists of component(s) of unknown acute inhalation toxicity. 93% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 29% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

2.3. Other hazards This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in	40 - 70	64741-41-9 265-041-0	-	649-264-00-4	
Classification: Flam. Liq. 1;H224, Acute Tox. 1;H310;(ATE: 5 mg/kg bw), Muta. 1B;H340, Carc. 1B;H350, Asp. Tox. 1;H304, Aquatic Chronic 2;H411					
tetraethyl silicate; ethyl silicate	10 - 30	78-10-4 201-083-8	-	014-005-00-0	#
Classification: Flam. Liq. 3;H226, Acute Tox. 4;H332;(ATE: 11 mg/l), Eye Irrit. 2;H319, STOT SE 3;H335					
butan-1-ol; n-butanol	1 - < 3	71-36-3 200-751-6	-	603-004-00-6	
Classification: Flam. Liq. 3;H226, Acute Tox. 4;H302;(ATE: 500 mg/kg bw), Skin Irrit. 2;H315, Eye Dam. 1;H318, STOT SE 3;H335;H336, Aquatic Chronic 3;H412					
Other components below reportable levels	5 - 10				

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.
M: M-factor
vPvB: very persistent and very bioaccumulative substance.
PBT: persistent, bioaccumulative and toxic substance.
#: This substance has been assigned Union workplace exposure limit(s).
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. 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. Oxygen or artificial respiration if needed. Call a poison center 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 if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
4.2. Most important symptoms and effects, both acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Dizziness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation.
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 warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards	Highly flammable liquid and vapor.
5.1. Extinguishing media	
Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO ₂).
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	Vapors may form explosive mixtures with air. Vapors 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.
Special fire fighting procedures	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use 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-emergency personnel	Avoid breathing mist/vapors. 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). Ventilate closed spaces before entering them. Avoid breathing mist/vapors. 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	<p>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 product from entering drains.</p> <p>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.</p> <p>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.</p> <p>Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers.</p>
6.4. Reference to other sections	For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Avoid breathing mist/vapors. Avoid contact with eyes. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. 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).

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

ANNEX 1, PART 1 Categories of dangerous substances

Hazard categories in accordance with Regulation (EC) No 1272/2008

- P5a, b or c FLAMMABLE LIQUIDS (Lower-tier requirements = 50 tons; Upper-tier requirements = 200 tons)

- E2 Hazardous to the Aquatic Environment Chronic (Lower-tier requirements = 200 tons; Upper-tier requirements = 500 tons)

7.3. Specific end use(s)

Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	MAK	150 mg/m3
		50 ppm
		600 mg/m3
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	Ceiling	200 ppm
		88 mg/m3
		10 ppm
	MAK	44 mg/m3
		5 ppm

Belgium. OEL. Exposure Limit Values to Chemical Substances at Work, Code of Well-being at work, Book VI, Title 1 - Chemical agents, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	62 mg/m3
		20 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Bulgaria. OELs. Ordinance No 13 on protection of workers against risks of exposure to chemical agents at work, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	150 mg/m3
	TWA	100 mg/m3
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Croatia. OELs (GVI). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and Biological Limit Values, Annex I (NN 91/2018), as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	154 mg/m3
		50 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	MAC	44 mg/m3
		5 ppm

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	150 mg/m3
		50 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	850 mg/m3
		100 ppm

Cyprus. OELs. Occupational Exposure Limit Values of Chemicals at Work (Safety and Health at Work (Chem. Agents) Reg., Ann. 1, R.A.A. 268/2001, as amended)

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Czech Republic. Occupational exposure limit values of chemicals at work (Decree on protection of health at work, 361/2007, Annex 2, Part A & Annex 3, Part A, as amended)

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	Ceiling	600 mg/m3
	TWA	300 mg/m3
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	Ceiling	1000 mg/m3
	TWA	200 mg/m3
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	Ceiling	176 mg/m3
	TWA	44 mg/m3

Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	Ceiling	150 mg/m3
		50 ppm
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	TLV	25 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TLV	44 mg/m3

Denmark. Work Environment Authority. Exposure Limits for Substances & Materials, Annex 2

Components	Type	Value
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5 ppm

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances (Regulation No. 105/2001, Annex), as amended

Components	Type	Value
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butan-1-ol; n-butanol (CAS 71-36-3)

STEL

90 mg/m3

TWA

30 ppm

45 mg/m3

15 ppm

Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]

STEL

300 mg/m3

tetraethyl silicate; ethyl silicate (CAS 78-10-4)

TWA

50 ppm

44 mg/m3

5 ppm

Finland. HTP-arvot, App 3., Binding Limit Values, Social Affairs and Ministry of Health

Components	Type	Value
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butan-1-ol; n-butanol (CAS 71-36-3)

STEL

230 mg/m3

TWA

75 ppm

150 mg/m3

50 ppm

tetraethyl silicate; ethyl silicate (CAS 78-10-4)

STEL

86 mg/m3

TWA

10 ppm

43 mg/m3

5 ppm

France. OELs. Indicative Occupational Exposure Limits as Prescribed by Order of 30 June 2004, as amended

Components	Type	Value
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tetraethyl silicate; ethyl silicate (CAS 78-10-4)

VME

44 mg/m3

5 ppm

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

Components	Type	Value
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butan-1-ol; n-butanol (CAS 71-36-3)

VLE

150 mg/m3

Regulatory status: Indicative limit (VL)

50 ppm

Regulatory status: Indicative limit (VL)

tetraethyl silicate; ethyl silicate (CAS 78-10-4)

VME

44 mg/m3

Regulatory status: Regulatory indicative (VRI)

5 ppm

Regulatory status: Regulatory indicative (VRI)

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

Components	Type	Value	Form
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	310 mg/m3	
		100 ppm	
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	86 mg/m3	Inhalable fraction.
		10 ppm	Inhalable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	AGW	310 mg/m3
		100 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	AGW	12 mg/m3
		1,4 ppm

Greece. OELs, Presidential Decree No. 307/1986, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	300 mg/m3
		100 ppm
	TWA	300 mg/m3
		100 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Hungary. OELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 1&2, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	90 mg/m3
	TWA	45 mg/m3
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3

Iceland. OELs. Regulation 390/2009 on Pollution Limits and Measures to Reduce Pollution at the Workplace, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	150 mg/m3
		50 ppm
	TWA	80 mg/m3
		25 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Ireland. OELVs, Schedules 1 & 2, Code of Practice for Chemical Agents and Carcinogens Regulations

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	20 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	20 ppm

Italy. OELs (Legislative Decree n.81, 9 April 2008), as amended

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Latvia. OELs. Occupational Exposure Limits of Chemical Substances at Workplace (Reg. No. 325/ 2007, L.V. 80, Annex 1), as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	10 mg/m3
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	TWA	10 mg/m3
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Lithuania. OELs. Occupational Exposure Limit Values for Chemical Substances (Hygiene Norm HN 23:2011; Order No. V-824/A1-389), as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	Ceiling	90 mg/m3
		30 ppm
	TWA	45 mg/m3
		15 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Luxembourg. OELs. Binding Occupational Exposure Limit Values (Annex I), G.D.R. of 14 November 2016, OJ Memorial A, n ° 235/2016, as amended

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Malta. OELs. Protection of Health and Safety of Workers from Risks related to Chemical Agents at Work (L.N 227/2003 Schedules I and V), as amended

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Netherlands. OELs per Annex XIII of Working Conditions Regulation (Staatscourant no. 252, 29 December 2006), as amended

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3

Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	Ceiling	75 mg/m3
		25 ppm

Norway. Regulation No. 1358 on Measures and Limit Values for Physical and Chemical Factors in Work Environment and Infection Groups for Biological Factors, as amended

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TLV	44 mg/m3
		5 ppm

Poland. Maximum permissible concentrations and intensities of harmful factors in the work environment (Dz.U.Poz. 1286/2018, Annex 1)

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	150 mg/m3
	TWA	50 mg/m3
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3

Portugal. Decree-Law No. 24/2012, Occupational Exposure Limit Values, Annex II, as amended

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796-2014)

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	20 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	10 ppm

Romania. OELs. Limit Values of Chemical Agents at Workplace (Regulation 1.218/2006, M.O 845, Annex 1, 3&4, as amended)

Components	Type	Value	Form
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	200 mg/m3	
		66 ppm	
	TWA	100 mg/m3	
		33 ppm	
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	STEL	200 mg/m3	
	TWA	100 mg/m3	
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3	Gaseous and vapor
		5 ppm	Gaseous and vapor

Slovakia. OELs. Maximum permissible exposure limits for chemical factors in workplace air (Regulation No 355/2006, Annex 1, Table 1, as amended)

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	310 mg/m3
		100 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Annex I), as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	TWA	310 mg/m ³
		100 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m ³
		5 ppm

Spain. OELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 1-Valores Límites Ambientales (VLAs)

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	154 mg/m ³
		50 ppm
	TWA	61 mg/m ³
		20 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m ³
		5 ppm

Sweden. OELs (Annex 1). Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2018:1), as amended

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	Ceiling	90 mg/m ³
		30 ppm
	TWA	45 mg/m ³
		15 ppm
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	STEL	300 mg/m ³
		50 ppm
	TWA	150 mg/m ³
		25 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	Ceiling	86 mg/m ³
		10 ppm
	TWA	44 mg/m ³
		5 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	310 mg/m ³
		100 ppm
	TWA	310 mg/m ³
		100 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	TWA	1100 mg/m3
		300 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1

Components	Type	Value
butan-1-ol; n-butanol (CAS 71-36-3)	STEL	154 mg/m3
		50 ppm
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU

Components	Type	Value
tetraethyl silicate; ethyl silicate (CAS 78-10-4)	TWA	44 mg/m3
		5 ppm

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

Components	Value	Determinant	Specimen	Sampling Time
butan-1-ol; n-butanol (CAS 71-36-3)	2 mg/g	1-Butanol (nach Hydrolyse)	Urine	*
	10 mg/g	1-Butanol (nach Hydrolyse)	Urine	*

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

Hungary. BELs. Decree on protection of workers exposed to chemical agents (5/2020. (II.6)), Annex 3&4, as amended

Components	Value	Determinant	Specimen	Sampling Time
butan-1-ol; n-butanol (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	*

* - 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
butan-1-ol; n-butanol (CAS 71-36-3)	2 mg/g	n-butyl alcohol	Creatinine in urine	*

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
	10 mg/g	n-butyl alcohol	Creatinine in urine	*

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

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte

Components	Value	Determinant	Specimen
butan-1-ol; n-butanol (CAS 71-36-3)	2 mg/g	n-Butanol	Creatinine in urine
	10 mg/g	n-Butanol	Creatinine in urine

* - 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.

Exposure guidelines

Belgium OELs: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Croatia ELVs: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Cyprus OEL: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Denmark GV: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Estonia OELs: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Finland Exposure Limit Values: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Greece OEL: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Hungary OELs: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Iceland OELs: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Lithuania OELs: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Norway Exposure Limit Values: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

Romania OELs: Skin designation

Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]

Can be absorbed through the skin.

Sweden Threshold Limit Values: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

UK EH40 WEL: Skin designation

butan-1-ol; n-butanol (CAS 71-36-3)

Can be absorbed through the skin.

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	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	
- Hand protection	Wear appropriate chemical resistant gloves.
- Other	Wear suitable protective clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Observe any medical surveillance requirements. 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.
Form	Liquid.
Color	Clear.
Odor	Not available.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	> 240 - < 278 °F (> 115,56 - < 136,67 °C)
Flammability	Not applicable.
Flash point	40,0 °F (4,4 °C)
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	Not available.
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water) (log value)	Not available.
Vapor pressure	45 mm Hg
Density and/or relative density	
Density	6,92 lb/gal
Vapor density	Not available.
Particle characteristics	Not available.

9.2. Other information

9.2.1. Information with regard to physical hazard classes No relevant additional information available.

9.2.2. Other safety characteristics

Evaporation rate	1,6 BuAc
Specific gravity	0,83
VOC	> 75 - < 100 %

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.

10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms Aspiration may cause pulmonary edema and pneumonitis. Dizziness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity May be fatal if swallowed and enters airways. Harmful if inhaled.

Components	Species	Test Results
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butan-1-ol; n-butanol (CAS 71-36-3)

Acute

Dermal

LD50	Rabbit	3400 mg/kg
------	--------	------------

Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]

Acute

Dermal

LD50	Rabbit	> 5 mg/kg
------	--------	-----------

tetraethyl silicate; ethyl silicate (CAS 78-10-4)

Acute

Dermal

LD50	Rabbit	5878 mg/kg
------	--------	------------

Oral

LD50	Rat	6270 mg/kg
------	-----	------------

Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitization Due to partial or complete lack of data the classification is not possible.

Skin sensitization Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity May cause genetic defects.

Poland. Order concerning carcinogenic and mutagenic substances in the workplace, as amended

Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	Mutagenic, Category 1B.
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Carcinogenicity May cause cancer.

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

Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Due to partial or complete lack of data the classification is not possible.

Aspiration hazard May be fatal if swallowed and enters airways.

Mixture versus substance information No information available.

11.2. Information on other hazards

Endocrine disrupting properties This mixture does not contain any substances having endocrine disrupting properties with respect to human health as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Toxic 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.

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)**
butan-1-ol; n-butanol
tetraethyl silicate; ethyl silicate

0,88
0,04

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

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 This mixture does not contain any substances having endocrine disrupting properties with respect to the environment as assessed in accordance with the criteria set out in Regulations (EC) No 1907/2006, (EU) No 2017/2100 and (EU) 2018/605, at a concentration equal to or greater than 0.1% by weight.

12.7. Other adverse effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

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).

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

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

14.3. Transport hazard class(es)

Class 3

Subsidiary risk -

Label(s) 3

Hazard No. (ADR) 33

Tunnel restriction code Not assigned.

14.4. Packing group III

14.5. Environmental hazards Yes

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint related material including paint thinning, drying, removing, or reducing compound
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

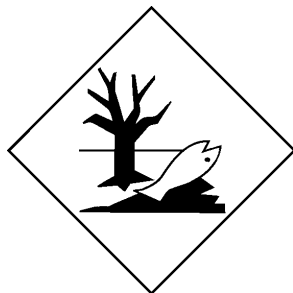
IMDG

14.1. UN number	UN1263
14.2. UN proper shipping name	Paint related material including paint thinning, drying, removing, or reducing compound
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	No.
EmS	Not assigned.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

14.7. Maritime transport in bulk according to IMO instruments Not established.

ADN; ADR; IATA; IMDG; RID





SECTION 15: Regulatory information

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

EU regulations

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

Not listed.

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

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

Not listed.

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

Not listed.

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

Not listed.

UFI:

Austria: VK45-X1MV-600Y-JEUR
Belgium: VK45-X1MV-600Y-JEUR
Bulgaria: VK45-X1MV-600Y-JEUR
Croatia: VK45-X1MV-600Y-JEUR
Cyprus: VK45-X1MV-600Y-JEUR
Czech Republic: VK45-X1MV-600Y-JEUR
Denmark: VK45-X1MV-600Y-JEUR
Estonia: VK45-X1MV-600Y-JEUR
EU: VK45-X1MV-600Y-JEUR
Finland: VK45-X1MV-600Y-JEUR
France: VK45-X1MV-600Y-JEUR
Germany: VK45-X1MV-600Y-JEUR
Greece: VK45-X1MV-600Y-JEUR
Hungary: VK45-X1MV-600Y-JEUR
Iceland: VK45-X1MV-600Y-JEUR
Ireland: VK45-X1MV-600Y-JEUR
Italy: VK45-X1MV-600Y-JEUR
Latvia: VK45-X1MV-600Y-JEUR
Lithuania: VK45-X1MV-600Y-JEUR
Luxembourg: VK45-X1MV-600Y-JEUR
Malta: VK45-X1MV-600Y-JEUR
Netherlands: VK45-X1MV-600Y-JEUR
Norway: VK45-X1MV-600Y-JEUR
Poland: VK45-X1MV-600Y-JEUR
Portugal: VK45-X1MV-600Y-JEUR
Romania: VK45-X1MV-600Y-JEUR
Slovakia: VK45-X1MV-600Y-JEUR
Slovenia: VK45-X1MV-600Y-JEUR
Spain: VK45-X1MV-600Y-JEUR
Sweden: VK45-X1MV-600Y-JEUR

Authorizations

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
- Conditions of restriction given for the associated entry number should be considered

butan-1-ol; n-butanol (CAS 71-36-3) 75
tetraethyl silicate; ethyl silicate (CAS 78-10-4) 75
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]

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

Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]

Other EU regulations	Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended ANNEX 1, PART 1 Categories of dangerous substances Hazard categories in accordance with Regulation (EC) No 1272/2008 - P5a, b or c FLAMMABLE LIQUIDS - E2 Hazardous to the Aquatic Environment Chronic
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	According to Directive 92/85/EEC as amended, pregnant women should not work with the product, if there is the least risk of exposure. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC, as amended.

France regulations

France INRS Table of Occupational Diseases

butan-1-ol; n-butanol (CAS 71-36-3)	Affections engendrées par les solvants organiques liquides à usage professionnel : hydrocarbures liquides aliphatiques ou cycliques saturés ou insaturés et leurs mélanges; hydrocarbures halogénés liquides; dérivés nitrés des hydrocarbures aliphatiques; al 84
Naphtha (petroleum), heavy straight-run; Low boiling point naphtha [A complex combination of hydrocarbons produced by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C6 through C12 and boiling in (CAS 64741-41-9)]	Affections cutanées ou affections des muqueuses provoquées par les goudrons de houille, les huiles de houille (comprenant les fractions de distillation dites phénoliques, naphtaléniques, acénaphténiques, anthracéniques et chryséniques), les brais de houil 16

Product registration number

Austria	UFI: VK45-X1MV-600Y-JEUR
Belgium	UFI: VK45-X1MV-600Y-JEUR
Czech Republic	UFI: VK45-X1MV-600Y-JEUR
Denmark	UFI: VK45-X1MV-600Y-JEUR
European Union	UFI: VK45-X1MV-600Y-JEUR
Finland	UFI: VK45-X1MV-600Y-JEUR
France	UFI: VK45-X1MV-600Y-JEUR
Germany	UFI: VK45-X1MV-600Y-JEUR
Greece	UFI: VK45-X1MV-600Y-JEUR
Hungary	UFI: VK45-X1MV-600Y-JEUR
Italy	UFI: VK45-X1MV-600Y-JEUR
Netherlands	UFI: VK45-X1MV-600Y-JEUR
Norway	UFI: VK45-X1MV-600Y-JEUR
Poland	UFI: VK45-X1MV-600Y-JEUR
Portugal	UFI: VK45-X1MV-600Y-JEUR
Slovakia	UFI: VK45-X1MV-600Y-JEUR
Slovenia	UFI: VK45-X1MV-600Y-JEUR
Spain	UFI: VK45-X1MV-600Y-JEUR
Sweden	UFI: VK45-X1MV-600Y-JEUR
Switzerland	UFI: VK45-X1MV-600Y-JEUR

15.2. Chemical safety assessment	No Chemical Safety Assessment has been carried out.
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SECTION 16: Other information

List of abbreviations

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 ADR: 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.
 Not available.

References

Information on evaluation method leading to the classification of mixture

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

Full text of any statements, which are not written out in full under sections 2 to 15

H224 Extremely flammable liquid and vapor.
 H226 Flammable liquid and vapor.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H310 Fatal in contact with skin.
 H315 Causes skin irritation.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H340 May cause genetic defects.
 H350 May cause cancer.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Revision information

Training information

Physical & Chemical Properties: Multiple Properties

Disclaimer

Follow training instructions when handling this material.

ITW Performance Polymers 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. 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 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.