

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

1.1. Product identifier

Trade name or designation of the mixture Dykem® Cross Check™ Torque Seal® - Blue

Registration number -

Synonyms None.

Part Number 83318

Issue date 30-December-2020

Version number 05

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Supersedes date 14-June-2021

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

Identified uses Inspection Paint

Uses advised against None 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.)
 Tel: +1 800-443-9536

In Case of Emergency +1 800-535-5053 (Infotrac)

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 3	H226 - Flammable liquid and vapour.
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Health hazards

Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Carcinogenicity	Category 1B	H350 - May cause cancer.
Specific target organ toxicity - single exposure	Category 1	H370 - Causes damage to organs.
Specific target organ toxicity - repeated exposure	Category 1 (central nervous system)	H372 - Causes damage to organs (central nervous system) through prolonged or repeated exposure.
Aspiration hazard	Category 1	H304 - May be fatal if swallowed and enters airways.

Hazard summary

May be ignited by heat, sparks or flames. May be fatal if swallowed and enters airways. Causes serious eye damage. Causes damage to organs. May cause cancer. May cause an allergic skin reaction. Prolonged exposure may cause chronic effects. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements

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

Contains:

butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime, Diacetone alcohol, Ethylbenzene, solvent naphtha (petroleum), medium aliph.; Straight run kerosine [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominant

Hazard pictograms



Signal word

Danger

Hazard statements

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H350	May cause cancer.
H370	Causes damage to organs.
H372	Causes damage to organs (central nervous system) through prolonged or repeated exposure.

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.
P260	Do not breathe vapour.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331	Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE/doctor.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage

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 None.

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 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
solvent naphtha (petroleum), medium aliph.; Straight run kerosine [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominant	30 - 40	64742-88-7 265-191-7	-	649-405-00-X	
Classification: STOT RE 1;H372, Asp. Tox. 1;H304					
butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime	1 - 5	96-29-7 202-496-6	-	616-014-00-0	
Classification: Acute Tox. 4;H312;(ATE: 1100 mg/kg), Skin Irrit. 2;H315, Eye Dam. 1;H318, Skin Sens. 1;H317, Carc. 1B;H350, STOT SE 1;H370, STOT SE 3;H336, STOT RE 2;H373					
Diacetone alcohol	1 - 5	123-42-2 204-626-7	-	603-016-00-1	
Classification: Eye Irrit. 2;H319					
Ethylbenzene	0,1 - 1	100-41-4 202-849-4	-	601-023-00-4	#
Classification: Flam. Liq. 2;H225, Acute Tox. 4;H332;(ATE: 11 mg/l), STOT RE 2;H373, Asp. Tox. 1;H304					

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.

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. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

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

Call a physician or poison control centre 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 oedema and pneumonitis. Narcosis. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

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

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.

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	Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours. 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 discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Use water spray to reduce vapours or divert vapour cloud drift. 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.

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. Put material in suitable, covered, labeled containers.

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 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. 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 mist/vapours. Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. 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), BGBl. II, no. 184/2001

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	MAK	240 mg/m3
		50 ppm
Ethylbenzene (CAS 100-41-4)	Ceiling	880 mg/m3
		200 ppm
	MAK	440 mg/m3 100 ppm

Belgium. Exposure Limit Values

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	241 mg/m3

Belgium. Exposure Limit Values

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	50 ppm
		551 mg/m3
	TWA	125 ppm
		87 mg/m3
		20 ppm

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
	TWA	435 mg/m3

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

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	MAC	241 mg/m3
	STEL	50 ppm 362 mg/m3
Ethylbenzene (CAS 100-41-4)	MAC	75 ppm 442 mg/m3
		STEL

Czech Republic. OELs. Government Decree 361

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	Ceiling	300 mg/m3
	TWA	200 mg/m3
Ethylbenzene (CAS 100-41-4)	Ceiling	500 mg/m3
	TWA	200 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TLV	240 mg/m3
		50 ppm
Ethylbenzene (CAS 100-41-4)	TLV	217 mg/m3
		50 ppm

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

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	240 mg/m3
		50 ppm
	TWA	120 mg/m3 25 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

Finland. Workplace Exposure Limits

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	360 mg/m3
		75 ppm
	TWA	240 mg/m3
Ethylbenzene (CAS 100-41-4)		50 ppm
	STEL	880 mg/m3
	TWA	200 ppm
		220 mg/m3
		50 ppm

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

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	VME	240 mg/m3
	Regulatory status: Indicative limit (VL)	
		50 ppm
Ethylbenzene (CAS 100-41-4)	VLE	442 mg/m3
	Regulatory status: Regulatory binding (VRC)	
		100 ppm
	Regulatory status: Regulatory binding (VRC)	
	VME	88,4 mg/m3
	Regulatory status: Regulatory binding (VRC)	
		20 ppm
Regulatory status: Regulatory binding (VRC)		

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

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	96 mg/m3
		20 ppm
Ethylbenzene (CAS 100-41-4)	TWA	88 mg/m3
		20 ppm

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

Components	Type	Value
butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)	AGW	1 mg/m3
		0,3 ppm
Diacetone alcohol (CAS 123-42-2)	AGW	96 mg/m3
		20 ppm
Ethylbenzene (CAS 100-41-4)	AGW	88 mg/m3
		20 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	360 mg/m3
		75 ppm
	TWA	240 mg/m3
		50 ppm

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3
		125 ppm
	TWA	435 mg/m3 100 ppm

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
	TWA	442 mg/m3

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m3 50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	200 mg/m3 50 ppm

Ireland. Occupational Exposure Limits

Components	Type	Value
butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)	STEL	33 mg/m3
		10 ppm
	TWA	10 mg/m3 3 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m3 50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

Italy. Occupational Exposure Limits

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	240 mg/m3
		50 ppm
	TWA	120 mg/m3 25 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

Netherlands. OELs (binding)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	430 mg/m3
	TWA	215 mg/m3

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TLV	120 mg/m3
		25 ppm
Ethylbenzene (CAS 100-41-4)	TLV	20 mg/m3
		5 ppm

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	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	240 mg/m3
		0 ppm
Ethylbenzene (CAS 100-41-4)	STEL	400 mg/m3
		0 ppm
	TWA	200 mg/m3 0 ppm

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
		200 ppm
	TWA	442 mg/m3 100 ppm

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

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	50 ppm
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	250 mg/m3
	TWA	53 ppm 150 mg/m3 32 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
	TWA	200 ppm 442 mg/m3 100 ppm

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

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
	TWA	200 ppm 442 mg/m3 100 ppm

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

Components	Type	Value
butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)	TWA	1 mg/m3
		0,3 ppm
Diacetone alcohol (CAS 123-42-2)	TWA	96 mg/m3
		20 ppm
Ethylbenzene (CAS 100-41-4)	TWA	442 mg/m3
		100 ppm

Spain. Occupational Exposure Limits

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	TWA	241 mg/m3
		50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
	TWA	200 ppm 441 mg/m3 100 ppm

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	240 mg/m3
	TWA	50 ppm 120 mg/m3 25 ppm

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	Ceiling	884 mg/m ³
		200 ppm
	TWA	220 mg/m ³
		50 ppm

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	192 mg/m ³
		40 ppm
	TWA	96 mg/m ³
		20 ppm
Ethylbenzene (CAS 100-41-4)	STEL	220 mg/m ³
		50 ppm
	TWA	220 mg/m ³
		50 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Diacetone alcohol (CAS 123-42-2)	STEL	362 mg/m ³
		75 ppm
	TWA	241 mg/m ³
		50 ppm
Ethylbenzene (CAS 100-41-4)	STEL	552 mg/m ³
		125 ppm
	TWA	441 mg/m ³
		100 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
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³
		200 ppm
	TWA	442 mg/m ³
		100 ppm

Biological limit values**Croatia. BLV. Dangerous Substance Exposure Limit Values at Workplace, Annexes 4 (as amended)**

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	1,5 g/g	Mandelic acid	Creatinine in urine	*
	1,5 mg/l	Ethylbenzene	Blood	*
	1,12 mol/mol	Mandelic acid	Creatinine in urine	*
	14,1 umol/l	Ethylbenzene	Blood	*

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

Czech Republic. Limit Values for Indicators of Biological Exposure Tests in Urine and Blood, Annex 2, Tables 1 and 2, Government Decree 432/2003 Sb.

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	1100 µmol/mmol	Mandelic acid	Creatinine in urine	*
	1500 mg/g	Mandelic acid	Creatinine in urine	*

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

Finland. HTP-arvot, App 2., Biological Limit Values, (BRA/BGV) , Social Affairs and Ministry of Health

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	5,2 mmol/l	Mandelic acid	Urine	*

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

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	1500 mg/g	Acide mandélique	Creatinine in urine	*

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

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

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	250 mg/g	Mandelsäure plus Phenylglyoxylsäure	Creatinine in urine	*

* - 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
Ethylbenzene (CAS 100-41-4)	1110 µmol/mmol	mandelic acid	Creatinine in urine	*
	1500 mg/g	mandelic acid	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
Ethylbenzene (CAS 100-41-4)	8,03 mg/g	2 and 4-ethylphenol	Creatinine in urine	*
	12 mg/l	2 and 4-ethylphenol	Urine	*

* - 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
Ethylbenzene (CAS 100-41-4)	700 mg/g	Suma del ácido mandélico y el ácido fenilgloxílico	Creatinine in 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	Sampling Time
Ethylbenzene (CAS 100-41-4)	600 mg/g	Mandelsäure plus Phenylglyoxylsäure	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**EU Exposure Limit Values: Skin designation**

Ethylbenzene (CAS 100-41-4) Can be absorbed through the skin.

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

butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7) Can be absorbed through the skin.

Diacetone alcohol (CAS 123-42-2) 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.

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 vapour cartridge and full facepiece.

Skin protection

- **Hand protection** Wear appropriate chemical resistant gloves.

- **Other** Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapour 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. Contaminated work clothing should not be allowed out of the workplace.

Environmental exposure controls 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.
Colour	Blue.
Odour	Mild.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	136,1 - 251,7 °C (276,98 - 485,06 °F)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1,1 %
Flammability limit - upper (%)	7 %
Flash point	40,6 °C (105,1 °F)
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Vapour pressure	Not available.
Vapour density	> 1 (air = 1)
Relative density	Not available.
Particle characteristics	Not available.
Other safety characteristics	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.
VOC	37,62%, 364 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.
10.4. Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the decomposition temperature. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	Carbon oxides.

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 damage to organs by inhalation. Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms Aspiration may cause pulmonary oedema and pneumonitis. Narcosis. Behavioural changes. Decrease in motor functions. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways.

Components	Species	Test Results
Diacetone alcohol (CAS 123-42-2)		
Acute		
Oral		
LD50	Rat	3000 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
Oral		
LD50	Rat	3500 mg/kg
solvent naphtha (petroleum), medium aliph.; Straight run kerosine [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominant (CAS 64742-88-7)]		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation		
<i>Vapour</i>		
LC50	Rat	> 4,5 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 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 May cause an allergic skin reaction.

Germ cell mutagenicity Chilean Spanish went out in Job 18-0024189, French and German were reviewed under 17-0023466 and Hindi under 17-0023485

Carcinogenicity May cause cancer.

ACGIH Carcinogens

Ethylbenzene (CAS 100-41-4) Confirmed animal carcinogen with unknown relevance to humans. A3

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

Not listed.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylbenzene (CAS 100-41-4)

2B Possibly carcinogenic to humans.

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

butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)

Carcinogenic, Category 2.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Causes damage to organs.
Specific target organ toxicity - repeated exposure	Causes damage to organs (central nervous system) through prolonged or repeated exposure.
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	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 Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Components	Species	Test Results
butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 777 - 914 mg/l, 96 hours
Diacetone alcohol (CAS 123-42-2)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) 420 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (<i>Daphnia magna</i>) 1,37 - 4,4 mg/l, 48 hours
Fish	LC50	Atlantic silverside (<i>Menidia menidia</i>) 4,4 - 5,7 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)

Diacetone alcohol	-0,098
Ethylbenzene	3,15

Bioconcentration factor (BCF) Not available.

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.

12.8. Additional information

Estonia Dangerous substances in soil Data

Ethylbenzene (CAS 100-41-4)	ETHYLBENZENE 0,1 mg/kg ETHYLBENZENE 5 mg/kg ETHYLBENZENE 50 mg/kg
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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. 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)	30
Tunnel restriction code	D/E
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.

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	No.
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	No.
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
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	No.
ERG Code	3L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

- 14.1. UN number UN1263
14.2. UN proper shipping name PAINT
14.3. Transport hazard class(es)
Class 3
Subsidiary risk -
14.4. Packing group III
14.5. Environmental hazards
Marine pollutant No.
EmS F-E, S-E
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 applicable.

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 (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

Ethylbenzene (CAS 100-41-4)

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

butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)

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

butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)

Other EU regulations

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

butanone oxime; ethyl methyl ketoxime; ethyl methyl ketone oxime (CAS 96-29-7)

Ethylbenzene (CAS 100-41-4)

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	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.
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

Not available.

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 H-statements not written out in full under Sections 2 to 15

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H336 May cause drowsiness or dizziness.
 H350 May cause cancer.
 H370 Causes damage to organs.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H373 May cause damage to organs through prolonged or repeated exposure.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Follow training instructions when handling this material.

Disclaimer

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