



SAFETY DATA SHEET

Version #: 02
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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 STEEL-IT 1400 Polyurethane Topcoat – Safety Yellow

Registration number -

Synonyms None.

Product code FGPA1400-P (pint), FGPA1400-Q (quart), FGPA1400-G (gallon), FGPA1400-5G (5-gallon pail)

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

Identified uses Paint / Industrial coating (topcoat).
Category: Pigmented metallic coating.

Uses advised against Uses other than the recommended use.

1.3. Details of the supplier of the safety data sheet

Manufacturer Stainless Steel Coatings, Inc.
Address 835 Sterling Road, Lancaster MA 01523-2915, USA
Telephone +1 (978) 365-9828
E-mail sds@STEEL-IT.com

Supplier HM Industrieservice GmbH
Address Großer Sand 3
76698 Ubstadt-Weiher, Germany
Telephone +49 7251 44127-0
Fax +49 7251 44127-29
E-mail info@hm-industrie.de
Website www.hm-industrie.de

1.4. Emergency telephone number CHEMTREC:
+1-703-527-3887 (International)

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

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

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

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

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

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

Czech Republic National Poisons Information Centre +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 Centre +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 Centre	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 Centre	(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 Centre	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.)
Greece Poison Information Centre telephone number	(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 Centre	(+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 Centre	+371 67042473 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Lithuania Neatidēliotina 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 Centre (NVIC)	NVIC: +31 (0)88 755 8000 (Only for the purpose of informing medical personnel in cases of acute intoxications)
Norway Norwegian Poison Information Centre	22 59 13 00 (Available 24 hours a day. SDS/Product information may not be available for the Emergency Service.)
Portugal Poison Centre	800 250 250
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 Centre	+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 Centre	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.)
Ireland National Poisons Information Centre	353 (1) 809 2566 Healthcare Professionals: 24 hours, 7 days a week

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

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Skin sensitisation	Category 1	H317 - May cause an allergic skin reaction.
Carcinogenicity	Category 1B	H350 - May cause cancer.
Reproductive toxicity (inhalation)	Category 2	H361 - Suspected of damaging fertility or the unborn child by inhalation.

Specific target organ toxicity - single exposure

Category 3 narcotic effects

H336 - May cause drowsiness or dizziness.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard

Category 2

H411 - Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Contains: 2-Butanone oxime, 2-Ethylhexanoic Acid Zirconium Salt, Benzene, 1-chloro-4-(trifluoromethyl)-, Distillates (petroleum), hydrotreated light, Nickel, Xylene

Hazard pictograms



Signal word

Danger

Hazard statements

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child by inhalation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P308 + P311	IF exposed or concerned: Call a POISON CENTRE/doctor.
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Storage

P403 + P235	Store in a well-ventilated place. Keep cool.
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Disposal

Not assigned.

Supplemental information on the label

Restricted to professional users.
EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
The mixture contains substance(s) in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties.
The mixture contains substance(s) considered to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Benzene, 1-chloro-4-(trifluoromethyl)-	20 - 30	98-56-6 202-681-1	-	-	Classification: Flam. Liq. 3;H226, Skin Sens. 1B;H317, Carc. 2;H351, Repr. 2;H361, Aquatic Chronic 2;H411
Distillates (petroleum), hydrotreated light	15 - 25	64742-47-8 265-149-8	-	649-422-00-2	Classification: Flam. Liq. 3;H226, Skin Irrit. 2;H315, STOT SE 3;H336, Asp. Tox. 1;H304, Aquatic Chronic 2;H411
Titanium dioxide	1 - 10	13463-67-7 236-675-5	-	022-006-002	Classification: -

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Xylene	< 2	1330-20-7 215-535-7	-	601-022-00-9	#
Classification: Flam. Liq. 3;H226, Acute Tox. 4;H312;(ATE: 1100 mg/kg bw), Acute Tox. 4;H332;(ATE: 11 mg/l), Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335;H336, STOT RE 2;H373, Asp. Tox. 1;H304					
Ethylbenzene	< 0,8	100-41-4 202-849-4	-	601-023-00-4	#
Classification: Flam. Liq. 2;H225, Acute Tox. 4;H332;(ATE: 17,4 mg/l), STOT RE 2;H373, Asp. Tox. 1;H304, Aquatic Chronic 3;H412					
Nickel	< 0,6	7440-02-0 231-111-4	-	028-002-01-4	
Classification: Skin Sens. 1;H317, Carc. 2;H351, STOT RE 1;H372, Aquatic Chronic 3;H412					
2-Butanone oxime	< 0,2	96-29-7 202-496-6	-	616-014-00-0	
Classification: Acute Tox. 3;H301;(ATE: 100 mg/kg bw), Acute Tox. 4;H312;(ATE: 1100 mg/kg bw), Skin Irrit. 2;H315, Eye Dam. 1;H318, Skin Sens. 1B;H317, Carc. 1B;H350, STOT SE 1;H370, STOT SE 3;H336, STOT RE 2;H373					
2-Ethylhexanoic Acid Zirconium Salt	< 0,2	22464-99-9 245-018-1	-	-	
Classification: Repr. 1B;H360D, Repr. 2;H361					
Copper	< 0,1	7440-50-8 231-159-6	-	029-024-00-X	ED
Classification: Aquatic Acute 1;H400(M=10), Aquatic Chronic 1;H410(M=10)					

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
ATE: Acute toxicity estimate.
ED: Endocrine disruptor
M: M-factor

Composition comments

The full text for all H-statements is displayed in section 16.
All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.

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. Call a poison centre or doctor/physician if you feel unwell.

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. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Do not induce vomiting without advice from poison control centre. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.

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

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause redness and pain. 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. 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	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 such as: Carbon oxides. Chlorine compounds. Fluorine compounds. Fumes of metal oxides.
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. Cool containers exposed to flames with water until well after the fire is out. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply.
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. Avoid breathing mist/vapours/spray. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapours/spray. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

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

6.3. Methods and material for containment and cleaning up Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools.

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. Retain and dispose of contaminated wash water.

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

Never return spills to original containers for re-use.

6.4. Reference to other sections For personal protection, see section 8 of the SDS. For waste disposal, see section 13 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. 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/vapours/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Persons susceptible to allergic reactions should not handle this product. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. 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 and sources of ignition. 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).

TRGS 510 storage class: 3.

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 tonnes; Upper-tier requirements = 200 tonnes)

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

7.3. Specific end use(s)

Paint / Industrial coating (topcoat).

Category: Pigmented metallic coating.

Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List Components

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	MAK	5 mg/m ³	Inhalable fraction.
Copper (CAS 7440-50-8)	MAK	1 mg/m ³	Inhalable fraction.
		0,1 mg/m ³	Fume and respirable dust.
	STEL	4 mg/m ³	Inhalable fraction.
		0,4 mg/m ³	Fume and respirable dust.
Ethylbenzene (CAS 100-41-4)	Ceiling	880 mg/m ³	
		200 ppm	
	MAK	440 mg/m ³	
		100 ppm	
Titanium dioxide (CAS 13463-67-7)	MAK	5 mg/m ³	Respirable dust.
	STEL	10 mg/m ³	Respirable dust.
Xylene (CAS 1330-20-7)	MAK	221 mg/m ³	
		50 ppm	
	STEL	442 mg/m ³	
		100 ppm	

Austria. TRK List Components

Components	Type	Value	Form
Nickel (CAS 7440-02-0)	STEL	2 mg/m ³	Inhalable dust.
	TWA	0,5 mg/m ³	Inhalable dust.

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	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m ³	
	TWA	5 mg/m ³	
Copper (CAS 7440-50-8)	TWA	1 mg/m ³	Dust and mist.
		0,2 mg/m ³	Fume.
Ethylbenzene (CAS 100-41-4)	STEL	551 mg/m ³	
		125 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	Form
	TWA	87 mg/m ³ 20 ppm	
Nickel (CAS 7440-02-0)	TWA	1 mg/m ³	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³ 100 ppm	
	TWA	221 mg/m ³ 50 ppm	

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

Components	Type	Value	Form
Copper (CAS 7440-50-8)	TWA	0,1 mg/m ³	
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m ³	
	TWA	435 mg/m ³	
Nickel (CAS 7440-02-0)	TWA	0,05 mg/m ³	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	Respirable dust.
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³ 100 ppm	
	TWA	221 mg/m ³ 50 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	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	MAC	5 mg/m ³	
	STEL	10 mg/m ³	
Copper (CAS 7440-50-8)	MAC	1 mg/m ³ 0,2 mg/m ³	Dust.
	STEL	2 mg/m ³	
Ethylbenzene (CAS 100-41-4)	MAC	442 mg/m ³ 100 ppm	
	STEL	884 mg/m ³ 200 ppm	
Nickel (CAS 7440-02-0)	MAC	0,5 mg/m ³	
Titanium dioxide (CAS 13463-67-7)	MAC	4 mg/m ³	Respirable dust.
		10 mg/m ³	Total dust.
Xylene (CAS 1330-20-7)	MAC	221 mg/m ³ 50 ppm	
	STEL	442 mg/m ³ 100 ppm	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	TWA	5 mg/m ³	
Copper (CAS 7440-50-8)	TWA	0,2 mg/m ³	Fume.

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

Components	Type	Value	Form
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

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	Form
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
		200 ppm	
	TWA	442 mg/m3	
		100 ppm	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3	
		50 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	Form
Copper (CAS 7440-50-8)	Ceiling	2 mg/m3	Aerosol, inhalable.
		0,2 mg/m3	Respirable aerosol fraction
	TWA	1 mg/m3	Aerosol, inhalable.
		0,1 mg/m3	Respirable aerosol fraction
Ethylbenzene (CAS 100-41-4)	Ceiling	500 mg/m3	
	TWA	200 mg/m3	
Iron (Massive metal) (CAS 7439-89-6)	TWA	10 mg/m3	
Nickel (CAS 7440-02-0)	Ceiling	1 mg/m3	Aerosol, inhalable.
	TWA	0,5 mg/m3	Aerosol, inhalable.
Xylene (CAS 1330-20-7)	Ceiling	400 mg/m3	
	TWA	200 mg/m3	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	
	TLV	5 mg/m3	
Copper (CAS 7440-50-8)	TLV	1 mg/m3	Dust.
		0,1 mg/m3	Fume.
Ethylbenzene (CAS 100-41-4)	TLV	217 mg/m3	
		50 ppm	
Nickel (CAS 7440-02-0)	TLV	0,05 mg/m3	Dust.
Titanium dioxide (CAS 13463-67-7)	STEL	12 mg/m3	
	TLV	6 mg/m3	
Xylene (CAS 1330-20-7)	TLV	109 mg/m3	
		25 ppm	

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

Components	Type	Value	Form
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Total dust.

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

Components	Type	Value	Form
Ethylbenzene (CAS 100-41-4)	STEL	0,2 mg/m3	Fine dust.
		884 mg/m3	
	TWA	200 ppm	
Nickel (CAS 7440-02-0)	TWA	442 mg/m3	
	TWA	100 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	0,5 mg/m3	
Xylene (CAS 1330-20-7)	STEL	5 mg/m3	
		450 mg/m3	
	TWA	100 ppm	
		200 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	TWA	1 mg/m3	
Copper (CAS 7440-50-8)	TWA	0,02 mg/m3	Respirable dust and/or fume.
		0,02 mg/m3	
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	500 mg/m3	Respirable.
Ethylbenzene (CAS 100-41-4)	STEL	880 mg/m3	
		200 ppm	
	TWA	220 mg/m3	
Nickel (CAS 7440-02-0)	TWA	50 ppm	Respirable.
		0,01 mg/m3	
	TWA	10 mg/m3	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Dust.
	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	440 mg/m3	
		100 ppm	
	TWA	220 mg/m3	
		50 ppm	

France. OELs. Occupational Exposure Limits as Prescribed by Art. R.4412-149 of Labor Code, as amended

Components	Type	Value	
Ethylbenzene (CAS 100-41-4)	VLE	442 mg/m3	
		100 ppm	
	VME	88,4 mg/m3	
Xylene (CAS 1330-20-7)	VLE	20 ppm	
		442 mg/m3	
	VME	100 ppm	
		221 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
Copper (CAS 7440-50-8)	VLE	2 mg/m3	Dust.
	VME	1 mg/m3	Dust.
Regulatory status:	Indicative limit (VL)		
Regulatory status:	Indicative limit (VL)		

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

Components	Type	Value	Form
		0,2 mg/m3	Fume.
Regulatory status: Indicative limit (VL)			
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)			
Nickel (CAS 7440-02-0)	VME	1 mg/m3	
Regulatory status: Indicative limit (VL)			
Xylene (CAS 1330-20-7)	VLE	442 mg/m3	
Regulatory status: Regulatory binding (VRC)			
		100 ppm	
Regulatory status: Regulatory binding (VRC)			
	VME	221 mg/m3	
Regulatory status: Regulatory binding (VRC)			
		50 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	Form
Copper (CAS 7440-50-8)	TWA	0,01 mg/m3	Respirable fraction.
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TWA	5 mg/m3	Respirable aerosol fraction
		350 mg/m3	Vapour.
		50 ppm	Vapour.
Ethylbenzene (CAS 100-41-4)	TWA	88 mg/m3	
		20 ppm	
Titanium dioxide (CAS 13463-67-7)	TWA	0,3 mg/m3	Respirable fraction.
Xylene (CAS 1330-20-7)	TWA	220 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
2-Butanone oxime (CAS 96-29-7)	AGW	1 mg/m3	
		0,3 ppm	
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	AGW	300 mg/m3	
Ethylbenzene (CAS 100-41-4)	AGW	88 mg/m3	
		20 ppm	
Nickel (CAS 7440-02-0)	AGW	0,03 mg/m3	Inhalable fraction.
		0,006 mg/m3	Respirable fraction.
Xylene (CAS 1330-20-7)	AGW	200 mg/m3	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Copper (CAS 7440-50-8)	STEL	2 mg/m3	Dust.
	TWA	1 mg/m3	Dust.
		0,2 mg/m3	Fume.
Ethylbenzene (CAS 100-41-4)	STEL	545 mg/m3	
		125 ppm	
	TWA	435 mg/m3	
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	
	Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3
Xylene (CAS 1330-20-7)		10 mg/m3	Inhalable
	STEL	650 mg/m3	
		150 ppm	
	TWA	435 mg/m3	
		100 ppm	

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

Components	Type	Value	
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	20 mg/m3	
	TWA	5 mg/m3	
Copper (CAS 7440-50-8)	STEL	0,2 mg/m3	
	Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3
Xylene (CAS 1330-20-7)		442 mg/m3	
	STEL	442 mg/m3	
	TWA	221 mg/m3	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	TWA	5 mg/m3	
	Copper (CAS 7440-50-8)	TWA	1 mg/m3
		0,1 mg/m3	Respirable dust.
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
		200 ppm	
	TWA	200 mg/m3	
Nickel (CAS 7440-02-0)		50 ppm	
	TWA	0,05 mg/m3	Dust.
Titanium dioxide (CAS 13463-67-7)	TWA	6 mg/m3	
	Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm	
TWA		109 mg/m3	
		25 ppm	

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

Components	Type	Value	Form
2-Butanone oxime (CAS 96-29-7)	STEL	33 mg/m3	
		10 ppm	
	TWA	10 mg/m3	
Copper (CAS 7440-50-8)		3 ppm	
	TWA	1 mg/m3	Dust and mist.
		0,2 mg/m3	Fume.
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
		200 ppm	
	TWA	442 mg/m3	
Nickel (CAS 7440-02-0)		100 ppm	
	TWA	0,5 mg/m3	
		4 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Total inhalable dust.
		442 mg/m3	
	STEL	100 ppm	
Xylene (CAS 1330-20-7)		221 mg/m3	
	TWA	50 ppm	
		442 mg/m3	

Italy. OELs

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	
		5 mg/m3	
	TWA	1 mg/m3	Dust and mist.
Copper (CAS 7440-50-8)		0,2 mg/m3	Fume.
	TWA	884 mg/m3	
		200 ppm	
Ethylbenzene (CAS 100-41-4)	STEL	442 mg/m3	
		100 ppm	
	TWA	1,5 mg/m3	Inhalable fraction.
Nickel (CAS 7440-02-0)	TWA	2,5 mg/m3	Respirable finescale particles
		0,2 mg/m3	Respirable nanoscale particles
		442 mg/m3	
Titanium dioxide (CAS 13463-67-7)	STEL	100 ppm	
		221 mg/m3	
	TWA	50 ppm	
Xylene (CAS 1330-20-7)		442 mg/m3	
	STEL	100 ppm	
		221 mg/m3	

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

Components	Type	Value
Copper (CAS 7440-50-8)	STEL	1 mg/m3
		0,5 mg/m3
	TWA	884 mg/m3
Ethylbenzene (CAS 100-41-4)		200 ppm
	STEL	442 mg/m3
		100 ppm
Nickel (CAS 7440-02-0)	TWA	0,05 mg/m3

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

Components	Type	Value
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³ 100 ppm
	TWA	221 mg/m ³ 50 ppm

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

Components	Type	Value	Form
Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)	TWA	20 mg/m ³	
Copper (CAS 7440-50-8)	TWA	1 mg/m ³	Inhalable fraction.
		0,2 mg/m ³	Respirable fraction.
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	STEL	500 mg/m ³	
	TWA	350 mg/m ³	
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³ 200 ppm	
	TWA	442 mg/m ³ 100 ppm	
		TWA	0,5 mg/m ³
Nickel (CAS 7440-02-0)	TWA	5 mg/m ³	
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m ³	
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³ 100 ppm	
	TWA	221 mg/m ³ 50 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
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³ 200 ppm
	TWA	442 mg/m ³ 100 ppm
		STEL
Xylene (CAS 1330-20-7)	TWA	221 mg/m ³ 50 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
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³ 200 ppm
	TWA	442 mg/m ³ 100 ppm
		STEL
Xylene (CAS 1330-20-7)	TWA	221 mg/m ³

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
		50 ppm

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

Components	Type	Value	Form
Copper (CAS 7440-50-8)	TWA	0,1 mg/m ³	Inhalable fraction.
Ethylbenzene (CAS 100-41-4)	STEL	430 mg/m ³	
	TWA	215 mg/m ³	
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³	
	TWA	210 mg/m ³	

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	Form
Copper (CAS 7440-50-8)	TLV	1 mg/m ³	Dust.
		0,1 mg/m ³	Fume.
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	TLV	275 mg/m ³	
		40 ppm	
Ethylbenzene (CAS 100-41-4)	TLV	20 mg/m ³	
		5 ppm	
Nickel (CAS 7440-02-0)	TLV	0,05 mg/m ³	
Xylene (CAS 1330-20-7)	TLV	108 mg/m ³	
		25 ppm	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m ³	
	TWA	5 mg/m ³	
Copper (CAS 7440-50-8)	TWA	0,2 mg/m ³	
Ethylbenzene (CAS 100-41-4)	STEL	400 mg/m ³	
	TWA	200 mg/m ³	
Nickel (CAS 7440-02-0)	TWA	0,25 mg/m ³	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	Inhalable fraction.
Xylene (CAS 1330-20-7)	STEL	200 mg/m ³	
	TWA	100 mg/m ³	

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

Components	Type	Value
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³
		200 ppm
	TWA	442 mg/m ³
		100 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³
		100 ppm
	TWA	221 mg/m ³
		50 ppm

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Dust and mist.
		0,2 mg/m3	Fume.
Ethylbenzene (CAS 100-41-4)	TWA	20 ppm	
Nickel (CAS 7440-02-0)	TWA	1,5 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 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
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Copper (CAS 7440-50-8)	STEL	1,5 mg/m3	Dust.
		0,2 mg/m3	Fume.
	TWA	0,5 mg/m3	Dust.
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m3	
		200 ppm	
	TWA	442 mg/m3	
Nickel (CAS 7440-02-0)		100 ppm	
	STEL	0,5 mg/m3	
	TWA	0,1 mg/m3	
Titanium dioxide (CAS 13463-67-7)	STEL	15 mg/m3	
	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3	
		50 ppm	

Slovakia. OELs for carcinogens and mutagens. Regulation No. 356/2006 on carcinogenic and mutagenic substances, as amended

Components	Type	Value	Form
Nickel (CAS 7440-02-0)	TWA	0,05 mg/m3	Inhalable fraction.

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	TWA	1 mg/m3	
Copper (CAS 7440-50-8)	TWA	1 mg/m3	Inhalable fraction.
		0,2 mg/m3	Respirable fume.
Ethylbenzene (CAS 100-41-4)	TWA	442 mg/m3	
		100 ppm	
Iron (Massive metal) (CAS 7439-89-6)	TWA	6 mg/m3	

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

Components	Type	Value	Form
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m ³	
Xylene (CAS 1330-20-7)	TWA	221 mg/m ³ 50 ppm	

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	Form
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³ 200 ppm	
Xylene (CAS 1330-20-7)	STEL	442 mg/m ³ 100 ppm	

Slovenia. OELs. Occupational Exposure Limits of Chemicals at Workplace (Reg. on Protection of Workers from Risks due to Exp. to Chemicals at Work, Ann. I 100/2001), as amended

Components	Type	Value	Form
2-Butanone oxime (CAS 96-29-7)	KTV	8 mg/m ³ 2,4 ppm	
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	KTV	1 mg/m ³	Inhalable fraction.
Ethylbenzene (CAS 100-41-4)	KTV	884 mg/m ³ 200 ppm	
Nickel (CAS 7440-02-0)	KTV	0,048 mg/m ³	Respirable fraction.
Xylene (CAS 1330-20-7)	KTV	442 mg/m ³ 100 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	Form
2-Butanone oxime (CAS 96-29-7)	TWA	1 mg/m ³ 0,3 ppm	
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	TWA	1 mg/m ³	Inhalable fraction.
Ethylbenzene (CAS 100-41-4)	TWA	442 mg/m ³ 100 ppm	
Nickel (CAS 7440-02-0)	TWA	0,006 mg/m ³	Respirable fraction.
Xylene (CAS 1330-20-7)	TWA	221 mg/m ³ 50 ppm	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m ³	
	TWA	5 mg/m ³	
Copper (CAS 7440-50-8)	TWA	0,01 mg/m ³	Respirable fraction.
Ethylbenzene (CAS 100-41-4)	STEL	884 mg/m ³ 200 ppm	
	TWA	441 mg/m ³	

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

Components	Type	Value	Form
		100 ppm	
Nickel (CAS 7440-02-0)	TWA	1 mg/m3	
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	
Xylene (CAS 1330-20-7)	STEL	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3	
		50 ppm	

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

Components	Type	Value	Form
Copper (CAS 7440-50-8)	TWA	0,01 mg/m3	Respirable dust.
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	STEL	500 mg/m3	
	TWA	350 mg/m3	
Ethylbenzene (CAS 100-41-4)	Ceiling	884 mg/m3	
		200 ppm	
	TWA	220 mg/m3	
		50 ppm	
Nickel (CAS 7440-02-0)	TWA	0,5 mg/m3	Total dust.
Titanium dioxide (CAS 13463-67-7)	TWA	5 mg/m3	Total dust.
Xylene (CAS 1330-20-7)	Ceiling	442 mg/m3	
		100 ppm	
	TWA	221 mg/m3	
		50 ppm	

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	Inhalable fraction.
	TWA	5 mg/m3	Inhalable fraction.
Copper (CAS 7440-50-8)	STEL	0,2 mg/m3	Inhalable fraction.
	TWA	0,1 mg/m3	Inhalable fraction.
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)	STEL	700 mg/m3	Vapour.
		100 ppm	Vapour.
	TWA	5 mg/m3	Aerosol
		350 mg/m3	Vapour.
		50 ppm	Vapour.
Ethylbenzene (CAS 100-41-4)	STEL	220 mg/m3	
		50 ppm	
	TWA	220 mg/m3	
		50 ppm	
Nickel (CAS 7440-02-0)	TWA	0,5 mg/m3	Inhalable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	3 mg/m3	Respirable dust.
Xylene (CAS 1330-20-7)	STEL	440 mg/m3	
		100 ppm	

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value	Form
	TWA	220 mg/m3 50 ppm	

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

Components	Type	Value	Form
2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)	STEL	10 mg/m3	
	TWA	5 mg/m3	
Copper (CAS 7440-50-8)	STEL	2 mg/m3	Inhalable dusts and mists.
	TWA	1 mg/m3	Inhalable dusts and mists.
		0,2 mg/m3	Fume.
Ethylbenzene (CAS 100-41-4)	STEL	552 mg/m3	
		125 ppm	
	TWA	441 mg/m3	
		100 ppm	
Nickel (CAS 7440-02-0)	TWA	0,5 mg/m3	
Titanium dioxide (CAS 13463-67-7)	TWA	4 mg/m3	Respirable.
		10 mg/m3	Inhalable
Xylene (CAS 1330-20-7)	STEL	441 mg/m3	
		100 ppm	
	TWA	220 mg/m3	
		50 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/m3
		200 ppm
	TWA	442 mg/m3
		100 ppm
Xylene (CAS 1330-20-7)	STEL	442 mg/m3
		100 ppm
	TWA	221 mg/m3
		50 ppm

Biological limit values

Croatia. BELs (BGV). Regulation on Protection of Workers against Exposure to Dangerous Chemicals at Work, OELs and BELs, Annex IV (NN 91/2018), 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	*
Xylene (CAS 1330-20-7)	1,5 g/g	Methylhippuric acids	Creatinine in urine	*
	1,5 mg/l	xylene	Blood	*
	0,88 mol/mol	Methylhippuric acids	Creatinine in urine	*
	14,13 umol/l	xylene	Blood	*

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

Czech Republic. BELs. Government Decree 432/2003 Sb., as amended

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	*
Nickel (CAS 7440-02-0)	0,077 µmol/mmol	Nickel	Creatinine in urine	*
	0,04 mg/g	Nickel	Creatinine in urine	*
Xylene (CAS 1330-20-7)	820 µmol/mmol	Methylhippuric acids	Creatinine in urine	*
	1400 mg/g	Methylhippuric acids	Creatinine in urine	*

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

Finland. HTP-arvot, App 2., Biological Limit Values, Social Affairs and Ministry of Health

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	5,2 mmol/l	Mandelic acid	Urine	*
Nickel (CAS 7440-02-0)	0,1 umol/l	Nickel	Urine	*
Xylene (CAS 1330-20-7)	5 mmol/l	Methylhippuric acids	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	*
Xylene (CAS 1330-20-7)	1500 mg/g	Acides méthylhippuriques	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	*
Xylene (CAS 1330-20-7)	2000 mg/l	Methylhippur-(Tolur-) säure (alle Isomere)	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
Ethylbenzene (CAS 100-41-4)	1110 µmol/mmol	mandelic acid	Creatinine in urine	*
	1500 mg/g	mandelic acid	Creatinine in urine	*
Nickel (CAS 7440-02-0)	0,051 µmol/l	Nickel	Urine	*
	0,003 mg/l	Nickel	Urine	*
Xylene (CAS 1330-20-7)	860 µmol/mmol	methyl hippuric acids	Creatinine in urine	*
	1500 mg/g	methyl hippuric acids	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	*

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
	12 mg/l	2 and 4-ethylphenol	Urine	*
Xylene (CAS 1330-20-7)	1334 mg/g	Methylhippuric acids	Creatinine in urine	*
	2000 mg/l	Methylhippuric acids	Urine	*
	1,5 mg/l	xylene	Blood	*

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

Spain. BELs. INSST, Límites de Exposición Profesional Para Agentes Químicos, Table 3-Valores Límite Biológicos (VLB)

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	*
Xylene (CAS 1330-20-7)	1 g/g	Ácidos metilhipúricos	Creatinine in urine	*

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

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte

Components	Value	Determinant	Specimen	Sampling Time
Ethylbenzene (CAS 100-41-4)	600 mg/g	Mandelsäure + Phenylglyoxylsäure	Creatinine in urine	*
Nickel (CAS 7440-02-0)	45 µg/l	Nickel	Urine	*
Xylene (CAS 1330-20-7)	2 g/l	Methylhippursäuren	Urine	*

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

UK. BELs. Biological Monitoring Guidance Values (BMGVs) (EH40/2005 (Fourth Edition 2020)), Table 2

Components	Value	Determinant	Specimen	Sampling Time
Xylene (CAS 1330-20-7)	650 mmol/mol	Methyl hippuric acid	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

Austria. MAK List

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Belgium OELs: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Bulgaria OELs: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Croatia ELVs: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Czech Republic PELs: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Denmark GV: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Estonia OELs: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

EU Exposure Limit Values: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

Finland Exposure Limit Values: Skin designation

Xylene (CAS 1330-20-7) Can be absorbed through the skin.

France Mandatory OELs (VLEP): Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Germany DFG MAK (advisory): Skin designation

2-Butanone oxime (CAS 96-29-7)

Can be absorbed through the skin.

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Germany TRGS 900 Limit Values: Skin designation

2-Butanone oxime (CAS 96-29-7)

Can be absorbed through the skin.

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Greece OEL: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Hungary OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Iceland OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Ireland Exposure Limit Values: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Italy OELs: Skin designation

Xylene (CAS 1330-20-7)

Danger of cutaneous absorption

Latvia OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Lithuania OELs: Skin designation

Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)

Can be absorbed through the skin.

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Luxembourg OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Malta OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Netherlands OELs (binding): Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Norway Exposure Limit Values: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Portugal OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Romania OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Slovakia OELs for Carcinogens and Mutagens: Skin designation

Nickel (CAS 7440-02-0)

Can be absorbed through the skin.

Slovakia OELs: Skin designation

Xylene (CAS 1330-20-7)

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)

2-Butanone oxime (CAS 96-29-7)

Can be absorbed through the skin.

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Spain OELs: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Sweden Threshold Limit Values: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

Switzerland SUVA Limit Values at the Workplace: Skin designation

Xylene (CAS 1330-20-7)

Can be absorbed through the skin.

UK EH40 WEL: Skin designation

Nickel (CAS 7440-02-0)

Can be absorbed through the skin.

Xylene (CAS 1330-20-7)

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. Provide easy access to water supply or an emergency 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

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed. Eye protection should meet standard EN 166.

Skin protection	
- Hand protection	Wear suitable gloves tested to EN374. Glove material: Nitrile. Use gloves with breakthrough time of 245 +/- 44 minutes. Minimum glove thickness 0.381 (15 mil) mm. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
- Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In case of inadequate ventilation or risk of inhalation of vapors, use suitable respiratory equipment with particulate filter (ABEK2/P3). Respiratory protection should meet standard EN 14387. Check with respiratory protective equipment suppliers.
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	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.
Colour	Safety yellow.
Odour	Characteristic of solvents.
Odour threshold	Property has not been measured.
Melting point/freezing point	Technically not possible to determine.
Boiling point or initial boiling point and boiling range	139 - 213 °C (282,2 - 415,4 °F)
Flammability	Flammable liquid and vapour.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	0,8 % (Petroleum distillates)
Explosive limit – upper (%)	5,6 % (Petroleum distillates)
Flash point	40 °C (104 °F) (Mineral spirits)
Auto-ignition temperature	260 °C (500 °F) (Petroleum distillates)
Decomposition temperature	253,8 °C (488,8 °F)
pH	Not applicable (material is insoluble in water).
Kinematic viscosity	2500 mm ² /s (25 °C (77 °F))
Solubility	
Solubility (water)	(< 0,1%) Insoluble in water.
Partition coefficient (n-octanol/water) (log value)	Not applicable, product is a mixture.
Vapour pressure	5,3 mmHg (20 °C (68 °F))
Density and/or relative density	
Density	1,294 g/cm ³ (25 °C (77 °F))
Relative density	1,294 (Water=1) (25 °C (77 °F))
Vapour density	> 1 (Air=1) (25 °C (77 °F))
Particle characteristics	
Particle size	Does not contain nanomaterials.

9.2. Other information

9.2.1. Information with regard to physical hazard classes	No relevant additional information available.
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9.2.2. Other safety characteristics

Evaporation rate	Property has not been measured.
Flammability	Flammable liquid and vapour.
Viscosity	Property has not been measured.
VOC	606,26 g/l (EU VOC) 377,59 g/l (US VOC) 5,06 lb/gal (EU VOC) 3,15 lb/gal (US VOC)
Other safety characteristics	Total weight solids: 48.2 % w/w (Calculated) Total volume solids: 43.48 % v/v (Calculated)

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	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Protect against direct sunlight. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents. Strong acids. Halogens. Chlorine.
10.6. Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Chlorine compounds. Fluorine compounds. Fumes of metal 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 drowsiness or dizziness. Suspected of damaging fertility or the unborn child by inhalation. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	May cause discomfort if swallowed.

Symptoms May cause drowsiness or dizziness. Headache. Nausea, vomiting. Direct contact with eyes may cause temporary irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.

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

Acute toxicity Not expected to be acutely toxic.

Components	Species	Test Results
2-Butanone oxime (CAS 96-29-7)		
Acute		
Dermal		
LD50	Rabbit	> 1000 mg/kg, 24 Hours
Oral		
LD50	Rat	> 900 mg/kg
Ethylbenzene (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	15400 mg/kg
Inhalation		
LC50	Rat	17,4 mg/l, 4 hours
Oral		
LD50	Rat	3500 - 4700 mg/kg
Nickel (CAS 7440-02-0)		
Acute		
Inhalation		
NOAEC	Rat	10200 mg/l, 1 hours
Oral		
LD50	Rat	> 9000 mg/kg

Components	Species	Test Results
Titanium dioxide (CAS 13463-67-7)		
Acute		
Oral		
LD50	Rat	> 5000 mg/kg
Xylene (CAS 1330-20-7)		
Acute		
Oral		
LD50	Rat	3523 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory sensitisation	Based on available data, the classification criteria are not met.	
Skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	Based on available data, the classification criteria are not met.	
Carcinogenicity	May cause cancer.	
Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)		
2-Butanone oxime (CAS 96-29-7)		
IARC Monographs. Overall Evaluation of Carcinogenicity		
Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)	2B Possibly carcinogenic to humans.	
Nickel (CAS 7440-02-0)	2B Possibly carcinogenic to humans.	
Xylene (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity 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)		
2-Butanone oxime (CAS 96-29-7)	Carcinogenic, Category 2.	
Nickel (CAS 7440-02-0)	Carcinogenic, Category 2.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child by inhalation.	
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.	
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.	
Aspiration hazard	Based on available data, the classification criteria are not met.	
Mixture versus substance information	No information available.	
11.2. Information on other hazards		
Endocrine disrupting properties	The mixture contains substance(s) considered to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.	
Other information	Symptoms may be delayed.	

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects.

Components	Species	Test Results
Copper (CAS 7440-50-8)		
Aquatic		
<i>Chronic</i>		
Other	NOEC	Juga plicifera
		6 µg/l
Distillates (petroleum), hydrotreated light (CAS 64742-47-8)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)
		2,9 mg/l, 96 hours
Ethylbenzene (CAS 100-41-4)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna)
		1,81 - 2,38 mg/l, 48 hours

Components		Species	Test Results
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4,2 mg/l, 96 hours
<i>Chronic</i>			
Crustacea	EC50	Ceriodaphnia dubia	3,6 mg/l, 7 days
Nickel (CAS 7440-02-0)			
Aquatic			
<i>Chronic</i>			
Crustacea	NOEC	Ceriodaphnia dubia	2,8 µg/l
Fish	NOEC	Zebra danio (Danio rerio)	40 µg/l
Titanium dioxide (CAS 13463-67-7)			
Aquatic			
<i>Acute</i>			
Crustacea	EC50	Daphnia magna	> 100 mg/l, 48 Hours
Fish	LL50	Oryzias latipes	> 100 mg/l, 96 Hours
Xylene (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2,6 mg/l, 96 hours

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow) Not applicable, product is a mixture.

Benzene, 1-chloro-4-(trifluoromethyl)- (CAS 98-56-6)	3,6
Ethylbenzene (CAS 100-41-4)	3,15

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil The product is insoluble in water. Not expected to be mobile in soil.

12.5. Results of PBT and vPvB assessment This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Endocrine disrupting properties The mixture contains substance(s) considered to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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

12.8. Additional information

Estonia Dangerous substances in soil Data

Copper (CAS 7440-50-8)	Copper (Cu) 100 mg/kg Copper (Cu) 150 mg/kg Copper (Cu) 500 mg/kg
Nickel (CAS 7440-02-0)	Nickel (Ni) 150 mg/kg Nickel (Ni) 50 mg/kg Nickel (Ni) 500 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose 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.

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. Do not re-use empty containers.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
08 01 11*

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. 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)	30
Tunnel restriction code	D/E
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
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
14.4. Packing group	III
14.5. Environmental hazards	Yes
ERG Code	3L
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
14.3. Transport hazard class(es)	
Class	3
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	Yes
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 established.

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

Copper (CAS 7440-50-8)

Nickel (CAS 7440-02-0)

Xylene (CAS 1330-20-7)

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

Not listed.

Authorisations

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

Distillates (petroleum), hydrotreated light (CAS 64742-47-8) 3

Xylene (CAS 1330-20-7) 75

2-Butanone oxime (CAS 96-29-7)

2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)

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

2-Butanone oxime (CAS 96-29-7)

2-Ethylhexanoic Acid Zirconium Salt (CAS 22464-99-9)

Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex I, as amended

Not listed.

Regulation 2019/1148 on Marketing and Use of Explosive Precursors, Annex II, as amended

Not listed.

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

Distillates (petroleum), hydrotreated light
(CAS 64742-47-8)

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

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
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.
Ceiling: Short Term Exposure Limit Ceiling value.
EC50: Effective Concentration 50%.
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
IMO: International Maritime Organization.
KTV: Short term exposure limit.
LC50: Lethal Concentration 50%.
LD50: Lethal Dose 50%.
LL50: Lethal level, 50%.
NOEC: No observed effect concentration.
PBT: Persistent, bioaccumulative, toxic.
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.
STEL: Short-Term Exposure Limit.
TLV: Threshold Limit Value.
TWA : Time Weighed Average Value.
VLE: Exposure Limit Value.
VME: Exposure Average Value.
vPvB: very Persistent, very Bioaccumulative.

References

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
ECHA: European Chemical Agency.
EPA: AQUIRE database
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
NLM: Hazardous Substances Data Base

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

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
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.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H350 May cause cancer.
H351 Suspected of causing cancer.
H360D May damage the unborn child.
H361 Suspected of damaging fertility or the unborn child.
H361 Suspected of damaging the unborn child by ingestion.
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.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Training information

H412 Harmful to aquatic life with long lasting effects.

Follow training instructions when handling this material.

Disclaimer

Stainless Steel Coatings, Inc. 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.