

SAFETY DATA SHEET

Version #: 07

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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 DEVCON® Stainless Steel Putty (ST) Resin

Registration number -

Synonyms None.

SKU# 0114

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

Identified uses Not available.

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company Name ITW Performance Polymers

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

Contact Person Customer Service

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

Email customerservice.shannon@itwpp.com

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

1.4. Emergency telephone number

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

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

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

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

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

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

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

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

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

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

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

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

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

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitization	Category 1	H317 - May cause an allergic skin reaction.

2.2. Label elements

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

Austria: CN10-F0X2-D005-D85W
Belgium: CN10-F0X2-D005-D85W
Bulgaria: CN10-F0X2-D005-D85W
Croatia: CN10-F0X2-D005-D85W
Cyprus: CN10-F0X2-D005-D85W
Czech Republic: CN10-F0X2-D005-D85W
Denmark: CN10-F0X2-D005-D85W
Estonia: CN10-F0X2-D005-D85W
EU: CN10-F0X2-D005-D85W
Finland: CN10-F0X2-D005-D85W
France: CN10-F0X2-D005-D85W
Germany: CN10-F0X2-D005-D85W
Greece: CN10-F0X2-D005-D85W
Hungary: CN10-F0X2-D005-D85W
Iceland: CN10-F0X2-D005-D85W
Ireland: CN10-F0X2-D005-D85W
Italy: CN10-F0X2-D005-D85W
Latvia: CN10-F0X2-D005-D85W
Lithuania: CN10-F0X2-D005-D85W
Luxembourg: CN10-F0X2-D005-D85W
Malta: CN10-F0X2-D005-D85W
Netherlands: CN10-F0X2-D005-D85W
Norway: CN10-F0X2-D005-D85W
Poland: CN10-F0X2-D005-D85W
Portugal: CN10-F0X2-D005-D85W
Romania: CN10-F0X2-D005-D85W
Slovakia: CN10-F0X2-D005-D85W
Slovenia: CN10-F0X2-D005-D85W
Spain: CN10-F0X2-D005-D85W
Sweden: CN10-F0X2-D005-D85W

Contains:

Iron, Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers

Hazard pictograms**Signal word**

Warning

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements**Prevention**

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear eye protection/face protection.
P280 Wear protective gloves.

Response

P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

Not available.

Disposal

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

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 mixture does not contain any substances included in the list established in accordance with REACH Article 59(1) for having endocrine disrupting properties at a concentration equal to or greater than 0.1% by weight.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Iron	50 - < 60	7439-89-6 231-096-4	-	-	
Classification: -					
Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers	20 - < 30	25085-99-8 -	01-2119456619-26-0000	-	
Classification: Skin Irrit. 2;H315, Eye Irrit. 2;H319, Skin Sens. 1;H317					
Chromium	10 - < 20	7440-47-3 231-157-5	-	-	#
Classification: Acute Tox. 2;H300;(ATE: 46 mg/kg bw), Aquatic Acute 1;H400(M=100), Aquatic Chronic 1;H410(M=100)					
Nickel Powder	1 - < 3	7440-02-0 231-111-4	-	028-002-01-4	
Classification: Skin Sens. 1;H317, Carc. 2;H351, STOT RE 1;H372, Aquatic Acute 1;H400(M=10), Aquatic Chronic 3;H412					
sulfur	< 0,3	7704-34-9 231-722-6	-	016-094-00-1	
Classification: Acute Tox. 1;H330;(ATE: 0,047 mg/l), Skin Irrit. 2;H315					
Other components below reportable levels	3 - < 5				

List of abbreviations and symbols that may be used above

ATE: Acute toxicity estimate.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

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

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

Composition comments

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

SECTION 4: First aid measures

General information

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. Wash contaminated clothing before reuse.

Eye contact

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

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards

No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media

Water fog. 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

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 Use water spray to cool unopened containers.

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 Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.

For emergency responders Keep unnecessary personnel away. Ensure adequate ventilation. 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 Large Spills: Stop the flow of material, if this is without risk. Following product recovery, flush area with water.

Small Spills: 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 Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s) Observe industrial sector guidance on best practices.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

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

Components	Type	Value
Chromium (CAS 7440-47-3)	MAK	2 mg/m ³

Austria. OELs. TRK List, Grenzwertverordnung, BGBl. II, no. 429/2011, as amended

Components	Type	Value	Form
Nickel Powder (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
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³
Nickel Powder (CAS 7440-02-0)	TWA	1 mg/m ³

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³
Nickel Powder (CAS 7440-02-0)	TWA	0,05 mg/m ³

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
Chromium (CAS 7440-47-3)	MAC	2 mg/m ³

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
Nickel Powder (CAS 7440-02-0)	MAC	0,5 mg/m ³

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

Components	Type	Value
Nickel Powder (CAS 7440-02-0)	TWA	1 mg/m ³

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³

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
Chromium (CAS 7440-47-3)	Ceiling	1,5 mg/m ³	Aerosol, inhalable.
	TWA	0,5 mg/m ³	Dust.
		0,5 mg/m ³	Aerosol, inhalable.
Iron (CAS 7439-89-6)	TWA	10 mg/m ³	
Nickel Powder (CAS 7440-02-0)	Ceiling	1 mg/m ³	Aerosol, inhalable.
	TWA	0,5 mg/m ³	Aerosol, inhalable.

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TLV	0,5 mg/m ³	Dust.
Nickel Powder (CAS 7440-02-0)	TLV	0,05 mg/m ³	Dust.

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³
Nickel Powder (CAS 7440-02-0)	TWA	0,5 mg/m ³

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³	
Nickel Powder (CAS 7440-02-0)	TWA	0,01 mg/m ³	Respirable.

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

Components	Type	Value
Chromium (CAS 7440-47-3)	VME	2 mg/m ³

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

Components	Type	Value
Nickel Powder (CAS 7440-02-0)	VME	1 mg/m ³

Regulatory status: Indicative limit (VL)

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	AGW	2 mg/m ³	Inhalable fraction.
Nickel Powder (CAS 7440-02-0)	AGW	0,03 mg/m ³	Inhalable fraction.
		0,006 mg/m ³	Respirable fraction.

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	1 mg/m3
Nickel Powder (CAS 7440-02-0)	TWA	1 mg/m3

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	2 mg/m3

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m3	Dust.
Nickel Powder (CAS 7440-02-0)	TWA	0,05 mg/m3	Dust.

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	2 mg/m3
Nickel Powder (CAS 7440-02-0)	TWA	0,5 mg/m3

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m3	
Nickel Powder (CAS 7440-02-0)	TWA	1,5 mg/m3	Inhalable fraction.

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	2 mg/m3
Nickel Powder (CAS 7440-02-0)	TWA	0,05 mg/m3
sulfur (CAS 7704-34-9)	TWA	6 mg/m3

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	2 mg/m3
Nickel Powder (CAS 7440-02-0)	TWA	0,5 mg/m3
sulfur (CAS 7704-34-9)	TWA	6 mg/m3

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m3

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m3

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m3

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

Components	Type	Value
Nickel Powder (CAS 7440-02-0)	TLV	0,05 mg/m3

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³
Nickel Powder (CAS 7440-02-0)	TWA	0,25 mg/m ³

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³	
Nickel Powder (CAS 7440-02-0)	TWA	1,5 mg/m ³	Inhalable fraction.

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³	
Nickel Powder (CAS 7440-02-0)	STEL	0,5 mg/m ³	
	TWA	0,1 mg/m ³	
sulfur (CAS 7704-34-9)	STEL	15 mg/m ³	Dust.

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

Components	Type	Value	Form
Nickel Powder (CAS 7440-02-0)	TWA	0,05 mg/m ³	Inhalable fraction.

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³
Iron (CAS 7439-89-6)	TWA	6 mg/m ³

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³	Inhalable fraction.
Nickel Powder (CAS 7440-02-0)	TWA	0,006 mg/m ³	Respirable fraction.

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

Components	Type	Value
Nickel Powder (CAS 7440-02-0)	TWA	1 mg/m ³

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

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³	Total dust.
Nickel Powder (CAS 7440-02-0)	TWA	0,5 mg/m ³	Total dust.

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle MAK-Werte

Components	Type	Value	Form
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³	Inhalable fraction.
Nickel Powder (CAS 7440-02-0)	TWA	0,5 mg/m ³	Inhalable fraction.

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

Components	Type	Value
Chromium (CAS 7440-47-3)	TWA	0,5 mg/m ³
Nickel Powder (CAS 7440-02-0)	TWA	0,5 mg/m ³

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
Chromium (CAS 7440-47-3)	TWA	2 mg/m ³

Biological limit values

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

Components	Value	Determinant	Specimen	Sampling Time
Chromium (CAS 7440-47-3)	0,065 µmol/mmol	Total chromium	Creatinine in urine	*
	0,03 mg/g	Total chromium	Creatinine in urine	*
Nickel Powder (CAS 7440-02-0)	0,077 µmol/mmol	Nickel	Creatinine in urine	*
	0,04 mg/g	Nickel	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
Nickel Powder (CAS 7440-02-0)	0,1 µmol/l	Nickel	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
Chromium (CAS 7440-47-3)	0,022 µmol/mmol	chromium	Creatinine in urine	*
	0,01 mg/g	chromium	Creatinine in urine	*
Nickel Powder (CAS 7440-02-0)	0,051 µmol/l	nickel	Urine	*
	0,003 mg/l	nickel	Urine	*

* - 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
Chromium (CAS 7440-47-3)	25 µg/l	Cromo total	Urine	*
	10 µg/l	Cromo total	Urine	*

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

Switzerland. SUVA Grenzwerte am Arbeitsplatz: Aktuelle BAT-Werte

Components	Value	Determinant	Specimen	Sampling Time
Nickel Powder (CAS 7440-02-0)	45 µg/l	Nickel	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
Chromium (CAS 7440-47-3)	10 µmol/mol	Chromium	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

Slovakia OELs for Carcinogens and Mutagens: Skin designation

Nickel Powder (CAS 7440-02-0) Can be absorbed through the skin.

UK EH40 WEL: Skin designation

Nickel Powder (CAS 7440-02-0) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
Individual protection measures, such as personal protective equipment	
General information	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Eye/face protection	Wear safety glasses with side shields (or goggles). Face shield is recommended.
Skin protection	
- Hand protection	Wear appropriate chemical resistant gloves.
- Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	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	Solid.
Form	Paste.
Color	Dark grey
Odor	Slight.
Melting point/freezing point	Not available.
Boiling point or initial boiling point and boiling range	608 °F (320 °C) estimated
Flammability	Not available.
Flash point	>399,9 °F (>204,4 °C) Pensky-Martens Closed Cup 265,0 °F (129,4 °C) estimated
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
pH	Not available.
Kinematic viscosity	Not available.
Solubility	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water) (log value)	Not available.
Vapor pressure	Not available.
Density and/or relative density	
Density	4,91 g/cm ³ estimated 3,10 g/cm ³
Vapor density	Not available.
Particle characteristics	Not available.

9.2. Other information

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

9.2.2. Other safety characteristics

Specific gravity	4,91 estimated 3,1
VOC	0 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	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidizing agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

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

Acute toxicity Not known.

Components	Species	Test Results
Chromium (CAS 7440-47-3)		
Acute		
Oral		
LD50	Rat	46 - 113 mg/kg
sulfur (CAS 7704-34-9)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 0,047 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

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

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

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

IARC Monographs. Overall Evaluation of Carcinogenicity

Chromium (CAS 7440-47-3)	3 Not classifiable as to carcinogenicity to humans.
Nickel Powder (CAS 7440-02-0)	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)

Nickel Powder (CAS 7440-02-0)	Carcinogenic, Category 2.
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Reproductive toxicity Due to partial or complete lack of data the classification is not possible.

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

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

Aspiration hazard Due to partial or complete lack of data the classification is not possible.

Mixture versus substance information No information available.

11.2. Information on other hazards

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

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

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

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This mixture does not contain substances assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII.

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

12.7. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.8. Additional information

Estonia Dangerous substances in soil Data

Chromium (CAS 7440-47-3)	Chromium (Cr) 100 MG/KG Chromium (Cr) 300 MG/KG Chromium (Cr) 800 MG/KG
Nickel Powder (CAS 7440-02-0)	Nickel (Ni) 150 MG/KG Nickel (Ni) 50 MG/KG Nickel (Ni) 500 MG/KG
sulfur (CAS 7704-34-9)	Chemical pesticides (As the total sum of the active substances) 0,5 MG/KG Chemical pesticides (As the total sum of the active substances) 20 MG/KG Chemical pesticides (As the total sum of the active substances) 5 MG/KG

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 Not regulated as dangerous goods.

14.2. UN proper shipping name Not regulated as dangerous goods.

14.3. Transport hazard class(es)

Class	Not assigned.
Subsidiary risk	-

Hazard No. (ADR) Not assigned.
Tunnel restriction code Not assigned.
14.4. Packing group -
14.5. Environmental hazards No.
14.6. Special precautions Not assigned.
for user

RID

14.1. UN number Not regulated as dangerous goods.
14.2. UN proper shipping Not regulated as dangerous goods.
name
14.3. Transport hazard class(es)
Class Not assigned.
Subsidiary risk -
14.4. Packing group -
14.5. Environmental hazards No.
14.6. Special precautions Not assigned.
for user

ADN

14.1. UN number Not regulated as dangerous goods.
14.2. UN proper shipping Not regulated as dangerous goods.
name
14.3. Transport hazard class(es)
Class Not assigned.
Subsidiary risk -
14.4. Packing group -
14.5. Environmental hazards No.
14.6. Special precautions Not assigned.
for user

IATA

14.1. UN number Not regulated as dangerous goods.
14.2. UN proper shipping Not regulated as dangerous goods.
name
14.3. Transport hazard class(es)
Class Not assigned.
Subsidiary risk -
14.4. Packing group -
14.5. Environmental hazards No.
14.6. Special precautions Not assigned.
for user

IMDG

14.1. UN number Not regulated as dangerous goods.
14.2. UN proper shipping Not regulated as dangerous goods.
name
14.3. Transport hazard class(es)
Class Not assigned.
Subsidiary risk -
14.4. Packing group -
14.5. Environmental hazards
Marine pollutant No.
EmS Not assigned.
14.6. Special precautions Not assigned.
for user

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

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

Chromium (CAS 7440-47-3)

Nickel Powder (CAS 7440-02-0)

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

Not listed.

UFI:

Austria: CN10-F0X2-D005-D85W
Belgium: CN10-F0X2-D005-D85W
Bulgaria: CN10-F0X2-D005-D85W
Croatia: CN10-F0X2-D005-D85W
Cyprus: CN10-F0X2-D005-D85W
Czech Republic: CN10-F0X2-D005-D85W
Denmark: CN10-F0X2-D005-D85W
Estonia: CN10-F0X2-D005-D85W
EU: CN10-F0X2-D005-D85W
Finland: CN10-F0X2-D005-D85W
France: CN10-F0X2-D005-D85W
Germany: CN10-F0X2-D005-D85W
Greece: CN10-F0X2-D005-D85W
Hungary: CN10-F0X2-D005-D85W
Iceland: CN10-F0X2-D005-D85W
Ireland: CN10-F0X2-D005-D85W
Italy: CN10-F0X2-D005-D85W
Latvia: CN10-F0X2-D005-D85W
Lithuania: CN10-F0X2-D005-D85W
Luxembourg: CN10-F0X2-D005-D85W
Malta: CN10-F0X2-D005-D85W
Netherlands: CN10-F0X2-D005-D85W
Norway: CN10-F0X2-D005-D85W
Poland: CN10-F0X2-D005-D85W
Portugal: CN10-F0X2-D005-D85W
Romania: CN10-F0X2-D005-D85W
Slovakia: CN10-F0X2-D005-D85W
Slovenia: CN10-F0X2-D005-D85W
Spain: CN10-F0X2-D005-D85W
Sweden: CN10-F0X2-D005-D85W

Authorizations

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

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended
- Conditions of restriction given for the associated entry number should be considered

sulfur (CAS 7704-34-9)

75

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

Not listed.

Other 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

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 for work with chemical agents in accordance with Directive 98/24/EC, as amended.

France regulations

France INRS Table of Occupational Diseases

Iron (CAS 7439-89-6)

Affections consécutives à l'inhalation de poussières minérales ou de fumées, contenant des particules de fer ou d'oxydes de fer 44
Affections consécutives au travail au fond dans les mines de fer 44 bis

Product registration number

Austria	UFI: CN10-F0X2-D005-D85W
Belgium	UFI: CN10-F0X2-D005-D85W
Czech Republic	UFI: CN10-F0X2-D005-D85W
Denmark	UFI: CN10-F0X2-D005-D85W
European Union	UFI: CN10-F0X2-D005-D85W
Finland	UFI: CN10-F0X2-D005-D85W
France	UFI: CN10-F0X2-D005-D85W
Germany	UFI: CN10-F0X2-D005-D85W
Greece	UFI: CN10-F0X2-D005-D85W
Hungary	UFI: CN10-F0X2-D005-D85W
Italy	UFI: CN10-F0X2-D005-D85W
Netherlands	UFI: CN10-F0X2-D005-D85W
Norway	UFI: CN10-F0X2-D005-D85W
Poland	UFI: CN10-F0X2-D005-D85W
Portugal	UFI: CN10-F0X2-D005-D85W
Slovakia	UFI: CN10-F0X2-D005-D85W
Slovenia	UFI: CN10-F0X2-D005-D85W
Spain	UFI: CN10-F0X2-D005-D85W
Sweden	UFI: CN10-F0X2-D005-D85W
Switzerland	UFI: CN10-F0X2-D005-D85W

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: 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 statements, which are not written out in full under sections 2 to 15

H300 Fatal if swallowed.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H330 Fatal if inhaled.
 H351 Suspected of causing cancer.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Revision information

None.

Training information

Follow training instructions when handling this material.

Disclaimer

ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.