

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 1 of 18

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

**1.1. Product identifier**

DINITROL 442 black

UFI: Q55F-20A4-E00P-CJ80

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

**Use of the substance/mixture**

Anti-corrosive coating

**1.3. Details of the supplier of the safety data sheet**

**Manufacturer**

Company name:	DINOL GmbH	
Street:	Pyrmonter Strasse 76	
Place:	D-32676 Luegde	
Telephone:	+ 49 (0) 5281 982980	Telefax: + 49 (0) 5281 9829860
E-mail:	msds@dinol.com	
Contact person:	Labor	
Internet:	www.dinol.com	
Responsible Department:	msds@dinol.com	

**Supplier**

Company name:	Leading Solvent Supplies Limited
Street:	Marston Business Park, Rudgate
Place:	GB Tockwith, York YO26 7QF
E-mail:	enquiries@leading-solvents.co.uk
Internet:	www.leading-solvents.co.uk

**1.4. Emergency telephone number:** Giftnotruf Berlin: +49 30 30686 700 (Beratung in Deutsch und Englisch)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No 1272/2008**

Flam. Liq. 3; H226  
 Skin Irrit. 2; H315  
 Eye Irrit. 2; H319  
 STOT SE 3; H335  
 STOT RE 2; H373  
 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

reaction mass of ethylbenzene and xylene  
 Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)  
 xylene  
 Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified

**Signal word:** Warning

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 2 of 18

**Pictograms:**



**Hazard statements**

- H226 Flammable liquid and vapour.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H412 Harmful to aquatic life with long lasting effects.
- EUH208 Contains Fatty acids, C18-unsatd. , trimers, compds. with oleylamine, Fatty acids, tall-oil, compds. with oleylamine, Cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

**Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P370+P378 In case of fire: Use water to extinguish.
- P403+P235 Store in a well-ventilated place. Keep cool.

**Special labelling**

Restricted to professional users.

**Labelling of packages where the contents do not exceed 125 ml**

**Signal word:** Warning

**Pictograms:**



**Hazard statements**

H412

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 3 of 18

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
	reaction mass of ethylbenzene and xylene			20 - < 25 %
	905-588-0		01-2119488216-32	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H226 H332 H312 H315 H319 H335 H373 H304 H412			
123-86-4	n-butyl acetate			5 - < 10 %
	204-658-1	607-025-00-1	01-2119485493-29	
	Flam. Liq. 3, STOT SE 3; H226 H336 EUH066			
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)			5 - < 10 %
	919-446-0		01-2119458049-33	
	Flam. Liq. 3, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Chronic 2; H226 H336 H372 H304 H411 EUH066			
1330-20-7	xylene			1 - < 5 %
	215-535-7	601-022-00-9	01-2119488216-32	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H226 H332 H312 H315 H319 H335 H373 H304 H412			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			1 - < 5 %
	919-857-5		01-2119463258-33	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1; H226 H336 H304 EUH066			
108-65-6	2-methoxy-1-methylethyl acetate			1 - < 5 %
	203-603-9	607-195-00-7	01-2119475791-29	
	Flam. Liq. 3, STOT SE 3; H226 H336			
100-41-4	ethylbenzene			1 - < 5 %
	202-849-4	601-023-00-4	01-2119489370-35	
	Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1; H225 H332 H373 H304			
	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified			1 - < 5 %
	918-668-5		01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411			
147900-93-4	Fatty acids, C18-unsatd., trimers, compds. with oleylamine			< 1 %
			01-2119971821-33	
	Acute Tox. 4, Skin Sens. 1, STOT RE 2, Aquatic Chronic 2; H302 H317 H373 H411			
85711-55-3	Fatty acids, tall-oil, compds. with oleylamine			< 1 %
	288-315-1		01-2119974148-28	
	Eye Dam. 1, Skin Sens. 1, STOT RE 2; H318 H317 H373			
136-52-7	Cobalt bis(2-ethylhexanoate)			< 0.1 %
	205-250-6		01-2119524678-29	
	Repr. 1B, Eye Irrit. 2, Skin Sens. 1A, Aquatic Acute 1, Aquatic Chronic 3; H360FD H319 H317 H400 H412			

Full text of H and EUH statements: see section 16.

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 4 of 18

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
	905-588-0	reaction mass of ethylbenzene and xylene	20 - < 25 %
		inhalation: LC50 = 20 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 4300 mg/kg	
123-86-4	204-658-1	n-butyl acetate	5 - < 10 %
		inhalation: LC50 = > 21 mg/l (vapours); inhalation: LC50 = >21 mg/l (dusts or mists); dermal: LD50 = > 14112 mg/kg; oral: LD50 = 10760 mg/kg	
	919-446-0	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	5 - < 10 %
		dermal: LD50 = >3400 mg/kg; oral: LD50 = >15000 mg/kg	
1330-20-7	215-535-7	xylene	1 - < 5 %
		inhalation: LC50 = 10-20 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 2000 mg/kg; oral: LD50 = 8700 mg/kg	
	919-857-5	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	1 - < 5 %
		inhalation: LC50 = > 5000 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg	
108-65-6	203-603-9	2-methoxy-1-methylethyl acetate	1 - < 5 %
		inhalation: LC50 = 35,7 mg/l (vapours); dermal: LD50 = >5000 mg/kg; oral: LD50 = 8500 mg/kg	
100-41-4	202-849-4	ethylbenzene	1 - < 5 %
		inhalation: LC50 = 17,2 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 15400 mg/kg; oral: LD50 = 3500 mg/kg	
	918-668-5	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified	1 - < 5 %
		inhalation: LC50 = >6193 mg/l (vapours); dermal: LD50 = >3160 mg/kg; oral: LD50 = 3492 mg/kg	
147900-93-4		Fatty acids, C18-unsatd. , trimers, compds. with oleylamine	< 1 %
		oral: LD50 = > 1570 mg/kg	
85711-55-3	288-315-1	Fatty acids, tall-oil, compds. with oleylamine	< 1 %
		oral: LD50 = > 2000 mg/kg	
136-52-7	205-250-6	Cobalt bis(2-ethylhexanoate)	< 0.1 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 3129 mg/kg	

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

If unconscious but breathing normally, place in recovery position and seek medical advice.

Never give anything by mouth to an unconscious person or a person with cramps.

In all cases of doubt, or when symptoms persist, seek medical advice.

**After inhalation**

Remove casualty to fresh air and keep warm and at rest.

**After contact with skin**

Change contaminated clothing.

Wash with plenty of water/Soap.

If skin irritation occurs: Get medical advice/attention.

**After contact with eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. In case of eye irritation consult an ophthalmologist.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious).

Call a physician immediately.

Put victim at rest, cover with a blanket and keep warm.

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 5 of 18

Do NOT induce vomiting.

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

Nausea, Dizziness, Headache.

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

No information available.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

alcohol resistant foam, Carbon dioxide (CO<sub>2</sub>), Extinguishing powder, Water fog.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Hazardous decomposition products: Danger of serious damage to health by prolonged exposure.

Do not inhale explosion and combustion gases. Use appropriate respiratory protection.

**5.3. Advice for firefighters**

Use water spray jet to protect personnel and to cool endangered containers.

**Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately.

Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**General advice**

Provide adequate ventilation.

Wear personal protection equipment.

Avoid contact with skin, eyes and clothes.

Avoid breathing dust/fume/gas/mist/vapours/spray.

**For emergency responders**

For further specification, refer to section 8 of the SDS.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.3. Methods and material for containment and cleaning up**

**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers).

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

**For cleaning up**

Provide adequate ventilation.

Clear contaminated areas thoroughly.

Do not rinse down with water.

**Other information**

No information available.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 6 of 18

**7.1. Precautions for safe handling**
**Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used.  
If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

**Advice on protection against fire and explosion**

Take precautionary measures against static discharges.  
Keep away from sources of ignition - No smoking.  
Vapours are heavier than air and will spread at floor level.  
Vapours may form explosive mixtures with air.

**Advice on general occupational hygiene**

Keep away from food, drink and animal feedingstuffs.  
When using do not eat or drink.  
Wash hands before breaks and after work.  
Avoid contact with skin and eyes.  
Remove contaminated, saturated clothing immediately.  
Do not breathe gas/vapour/aerosol.

**7.2. Conditions for safe storage, including any incompatibilities**
**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.  
Keep container dry.  
Keep away from heat. Protect from direct sunlight.

**Hints on joint storage**

Do not store together with: Oxidizing agents. Strong acid, strong alkalis

**7.3. Specific end use(s)**

Anti-corrosive coating

**SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
108-65-6	1-Methoxypropyl acetate	50	274		TWA (8 h)	WEL
		100	548		STEL (15 min)	WEL
123-86-4	Butyl acetate	150	724		TWA (8 h)	WEL
		200	966		STEL (15 min)	WEL
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
14807-96-6	Talc respirable dust	-	1		TWA (8 h)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

**Biological Monitoring Guidance Values (EH40)**

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid (creatinine)	650 mmol/mol	urine	Post shift

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 7 of 18

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
	reaction mass of ethylbenzene and xylene			
	Worker DNEL, long-term	inhalation	systemic	211 mg/m <sup>3</sup>
	Worker DNEL, long-term	inhalation	local	221 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	systemic	442 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	180 mg/kg bw/day
	Worker DNEL, acute	inhalation	local	289 mg/m <sup>3</sup>
	Consumer DNEL, long-term	oral	systemic	1,6 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	14,8 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	65,3 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	systemic	260 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	260 mg/m <sup>3</sup>
123-86-4	n-butyl acetate			
	Worker DNEL, long-term	inhalation	systemic	48 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	systemic	600 mg/m <sup>3</sup>
	Worker DNEL, long-term	inhalation	local	300 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	local	600 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	systemic	12 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	systemic	300 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	35,7 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	300 mg/m <sup>3</sup>
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)			
	Worker DNEL, long-term	inhalation	systemic	330 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	44 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	71 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	26 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day
1330-20-7	xylene			
	Consumer DNEL, long-term	oral	systemic	1,6 mg/kg bw/day
	Worker DNEL, long-term	dermal	systemic	180 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	108 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	77 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	systemic	14,8 mg/m <sup>3</sup>
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
	Consumer DNEL, long-term	oral	systemic	125 mg/kg bw/day
	Worker DNEL, long-term	dermal	systemic	208 mg/kg bw/day
	Consumer DNEL, long-term	dermal	systemic	125 mg/kg bw/day
	Worker DNEL, long-term	inhalation	systemic	871 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	systemic	185 mg/m <sup>3</sup>
108-65-6	2-methoxy-1-methylethyl acetate			

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 8 of 18

Worker DNEL, long-term	dermal	systemic	153,5 mg/kg bw/day
Worker DNEL, acute	inhalation	local	550 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	systemic	275 mg/m <sup>3</sup>
100-41-4	ethylbenzene		
Worker DNEL, long-term	inhalation	systemic	77 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local	293 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	180 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	15 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	1,6 mg/kg bw/day
	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified		
Consumer DNEL, long-term	oral	systemic	11 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic	25 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	11 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	150 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	32 mg/m <sup>3</sup>

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 9 of 18

**PNEC values**

CAS No	Substance	Value
Environmental compartment		
reaction mass of ethylbenzene and xylene		
Freshwater		0,327 mg/l
Marine water		0,327 mg/l
Freshwater sediment		12,64 mg/kg
Marine sediment		12,64 mg/kg
Soil		2,31 mg/kg
123-86-4	n-butyl acetate	
Freshwater		0,18 mg/l
Marine water		0,018 mg/l
Freshwater sediment		0,981 mg/kg
Marine sediment		0,0981 mg/kg
Micro-organisms in sewage treatment plants (STP)		35,6 mg/l
Soil		0,0903 mg/kg
1330-20-7	xylene	
Freshwater		0,327 mg/l
Marine water		0,327 mg/l
Freshwater sediment		12,46 mg/kg
Marine sediment		12,46 mg/kg
Micro-organisms in sewage treatment plants (STP)		6,58 mg/l
Soil		2,31 mg/kg
108-65-6	2-methoxy-1-methylethyl acetate	
Freshwater		0,635 mg/l
Marine water		0,0635 mg/l
Freshwater sediment		3,29 mg/kg
Marine sediment		0,329 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		0,29 mg/kg
100-41-4	ethylbenzene	
Freshwater		0,1 mg/l
Marine water		0,01 mg/l
Freshwater sediment		13,7 mg/kg
Marine sediment		1,37 mg/kg
Secondary poisoning		0,02 mg/kg
Micro-organisms in sewage treatment plants (STP)		9,6 mg/l
Soil		2,68 mg/kg

**8.2. Exposure controls**


**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 10 of 18

**Appropriate engineering controls**

Provide adequate ventilation.  
 If handled uncovered, arrangements with local exhaust ventilation should be used if possible.  
 If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

**Individual protection measures, such as personal protective equipment**
**Eye/face protection**

Eye glasses with side protection (EN 166)

**Hand protection**

Tested protective gloves must be worn (EN ISO 374):  
 FKM (fluoro rubber) penetration time (maximum wearing period): 480 min.  
 NBR (Nitrile rubber) penetration time (maximum wearing period): 480 min.  
 Thickness of the glove material : > 0,12 mm  
 For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.  
 Protective gloves have to be replaced at the first sign of deterioration.  
 Protect skin by using skin protective cream.

**Skin protection**

Wear anti-static footwear and clothing

**Respiratory protection**

Work in well-ventilated zones or use proper respiratory protection.  
 gas filtering equipment (EN 141),. Filter material/medium: A/P2

**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

Physical state:	Liquid	
Colour:	black	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		124 °C
Flammability:		not applicable
Lower explosion limits:		1,0 vol. %
Upper explosion limits:		7,0 vol. %
Flash point:		24 °C
Auto-ignition temperature:		210 °C
Decomposition temperature:		not determined
pH-Value:		not applicable
Viscosity / kinematic:		not determined
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.	
Solubility in other solvents	not determined	
Partition coefficient n-octanol/water:		not determined
Vapour pressure: (at 20 °C)		6,0 hPa
Density (at 20 °C):		1,16-1,20 g/cm <sup>3</sup>
Relative vapour density:		not determined
Particle characteristics:		not determined

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 11 of 18

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

not determined

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

not determined

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

44,6 %

Solid content:

53-57 %

Sublimation point:

not determined

Softening point:

not determined

Pour point:

not determined

Viscosity / dynamic:

1800-2500 mPa·s

(at 20 °C)

**Further Information**

No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Keep away from heat.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

Carbon monoxide

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes**

**Acute toxicity**

Based on available data, the classification criteria are not met.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 12 of 18

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	reaction mass of ethylbenzene and xylene				
	oral	LD50 mg/kg	4300	Rat	
	dermal	LD50 mg/kg	> 2000	Rabbit	
	inhalation (4 h) vapour	LC50	20 mg/l	Rat	
	inhalation dust/mist	ATE	1,5 mg/l		
123-86-4	n-butyl acetate				
	oral	LD50 mg/kg	10760	Rat	
	dermal	LD50 mg/kg	> 14112	Rabbit	
	inhalation vapour	LC50	> 21 mg/l	Rat	
	inhalation (4 h) dust/mist	LC50	>21 mg/l	Rat	
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)				
	oral	LD50 mg/kg	>15000	Rat	
	dermal	LD50 mg/kg	>3400	Rat	
1330-20-7	xylene				
	oral	LD50 mg/kg	8700	Rat	
	dermal	LD50 mg/kg	2000	Rabbit	
	inhalation (4 h) vapour	LC50 mg/l	10-20	Rat	
	inhalation dust/mist	ATE	1,5 mg/l		
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics				
	oral	LD50 mg/kg	> 5000	Rat	
	dermal	LD50 mg/kg	> 5000	Rabbit	
	inhalation (4 h) vapour	LC50 mg/l	> 5000	Rat	
108-65-6	2-methoxy-1-methylethyl acetate				
	oral	LD50 mg/kg	8500	Rat	
	dermal	LD50 mg/kg	>5000	Rabbit	
	inhalation (4 h) vapour	LC50	35,7 mg/l	Rat	
100-41-4	ethylbenzene				
	oral	LD50 mg/kg	3500	Rat	GESTIS
	dermal	LD50 mg/kg	15400	Rabbit	GESTIS
	inhalation (4 h) vapour	LC50	17,2 mg/l	Rat	
	inhalation dust/mist	ATE	1,5 mg/l		

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 13 of 18

Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified					
	oral	LD50 mg/kg	3492	Rat	
	dermal	LD50 mg/kg	>3160	Rabbit	
	inhalation vapour	LC50 mg/l	>6193	Rat	
147900-93-4 Fatty acids,C18-unsatd. , trimers, compds. with oleylamine					
	oral	LD50 mg/kg	> 1570	Rat	
85711-55-3 Fatty acids, tall-oil, compds. with oleylamine					
	oral	LD50 mg/kg	> 2000	Rat	
136-52-7 Cobalt bis(2-ethylhexanoate)					
	oral	LD50 mg/kg	3129	Rat	
	dermal	LD50 mg/kg	>2000	Rat	

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

**Sensitising effects**

Based on available data, the classification criteria are not met.

Contains Fatty acids,C18-unsatd. , trimers, compds. with oleylamine, Fatty acids, tall-oil, compds. with oleylamine, Cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause respiratory irritation. (reaction mass of ethylbenzene and xylene)

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure. (reaction mass of ethylbenzene and xylene; Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.2. Information on other hazards**
**Endocrine disrupting properties**

Endocrine disrupting potential No information available.

**Further information**

There are no data available on the preparation/mixture itself.

**SECTION 12: Ecological information**
**12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 14 of 18

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
123-86-4	n-butyl acetate					
	Acute fish toxicity	LC50	18 mg/l	96 h	Pimephales promelas (fathead minnow)	
	Acute algae toxicity	ErC50	397 mg/l	72 h	Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	44 mg/l	48 h	Daphnia magna (Big water flea)	
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)					
	Acute fish toxicity	LL50	10-30 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	4,6 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EL50	10-22 mg/l	48 h	Daphnia magna (Big water flea)	
1330-20-7	xylene					
	Acute fish toxicity	LC50	86 mg/l	96 h	Leuciscus idus (golden orfe)	
	Acute algae toxicity	ErC50	2-8 mg/l		Selenastrum capricornutum	
	Acute crustacea toxicity	EC50	1-10 mg/l	48 h		
100-41-4	ethylbenzene					
	Acute fish toxicity	LC50	80 mg/l	96 h	fish	GESTIS
	Acute algae toxicity	ErC50	5 mg/l	72 h	alga	GESTIS
	Acute crustacea toxicity	EC50	4,75 mg/l	48 h		GESTIS

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
123-86-4	n-butyl acetate			
	OECD 301D/ EEC 92/69/V, C.4-E	83%	28	
	Readily biodegradable (according to OECD criteria).			
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)			
		74,7 %	28	
	Leicht biologisch abbaubar			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			
		80%		
	Readily biodegradable (according to OECD criteria).			
108-65-6	2-methoxy-1-methylethyl acetate			
	OECD 302 B	>90 %		
	Readily biodegradable (according to OECD criteria).			

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 15 of 18

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
123-86-4	n-butyl acetate	2,3
108-65-6	2-methoxy-1-methylethyl acetate	0,56
100-41-4	ethylbenzene	3,15

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

There are no data available on the preparation/mixture itself.

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Disposal recommendations**

Dispose of waste according to applicable legislation. Do not mix with other wastes.

List of proposed waste codes/waste designations in accordance with EWC:

**List of Wastes Code - residues/unused products**

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Remove according to the regulations.

**SECTION 14: Transport information**
**Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 1139  
**14.2. UN proper shipping name:** Coating solution  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
 Hazard label: 3



Classification code: F1  
 Special Provisions: 640E  
 Limited quantity: 5 L

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 16 of 18

Transport category: 3  
 Hazard No: 30  
 Tunnel restriction code: D/E  
**Other applicable information (land transport)**  
 E1

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1139  
**14.2. UN proper shipping name:** Coating solution  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
 Hazard label: 3



Marine pollutant: no  
 Special Provisions: 955  
 Limited quantity: 5 L  
 EmS: F-E, S-E  
**Other applicable information (marine transport)**  
 E1

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 1139  
**14.2. UN proper shipping name:** Coating solution  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
 Hazard label: 3



Special Provisions: A3  
 Limited quantity Passenger: 10 L  
 IATA-packing instructions - Passenger: 355  
 IATA-max. quantity - Passenger: 60 L  
 IATA-packing instructions - Cargo: 366  
 IATA-max. quantity - Cargo: 220 L

**Other applicable information (air transport)**  
 E1  
 Passenger-LQ: Y344

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: Flammable liquids

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):  
 Entry 3, Entry 28, Entry 40, Entry 75

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 17 of 18

Directive 2004/42/EC on VOC in paints and varnishes:	44,6 %
Information according to Directive 2012/18/EU (SEVESO III):	530 g/l
	P5c FLAMMABLE LIQUIDS

**Additional information**

Observe in addition any national regulations!

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

**Additional information**

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

**SECTION 16: Other information**
**Changes**

This data sheet contains changes from the previous version in section(s): 2,8,9,11.

**Abbreviations and acronyms**

Flam. Liq. 2: Flammable liquids, hazard category 2

Flam. Liq. 3: Flammable liquids, hazard category 3

Acute Tox. 4: Acute toxicity, hazard category 4

Asp. Tox. 1: Aspiration hazard, hazard category 1

Skin Irrit. 2: Skin irritation, hazard category 2

Eye Dam. 1: Serious eye damage, hazard category 1

Eye Irrit. 2: Eye irritation, hazard category 2

Skin Sens. 1: Skin sensitisation, hazard category 1

Skin Sens. 1A: Skin sensitisation, hazard category 1A

Repr. 1B: Reproductive toxicity, hazard category 1B

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

STOT RE 1: Specific target organ toxicity - repeated exposure, hazard category 1

STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2

Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1

Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard category: Chronic 2

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

**DINITROL 442 black**

Revision: 18.12.2025

Product code: 5115

Page 18 of 18

**Classification for mixtures and used evaluation method**

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H335	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 3; H412	Calculation method

**Relevant H and EUH statements (number and full text)**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful 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.
H360FD	May damage fertility. May damage the unborn child.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains Fatty acids, C18-unsatd. , trimers, compds. with oleylamine, Fatty acids, tall-oil, compds. with oleylamine, Cobalt bis(2-ethylhexanoate). May produce an allergic reaction.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

This safety data sheet complies with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*