

according to Regulation (EC) No 1907/2006

DINITROL 410 UV (NF) Grey

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Product code: 410g

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3.2. Mixtures
Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1330-20-7	xylene			< 10 %
	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; H226 H332 H312 H315 H319 H335 H373 H304			
100-41-4	ethylbenzene			< 2 %
	202-849-4	601-023-00-4	01-2119489370-35	
	Flam. Liq. 2, Acute Tox. 4, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H225 H332 H373 H304 H412			
101-68-8	diphenylmethane-4,4'-diisocyanate			< 0,5 %
	202-966-0	615-005-00-9	01-2119457014-47	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			
25686-28-6	Methylenediphenyl diisocyanate, oligomers			< 0,2 %
	500-040-3		01-2119457013-49	
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373			

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

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

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.

If unconscious place in recovery position and seek medical advice.

After contact with skin

Remove mechanically (e.g. dab away using wadding or cellulose material) then thoroughly wash the affected skin with a mild cleansing agent and water. 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

Do NOT induce vomiting. Call a physician immediately.

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

Nausea, Drowsiness, 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

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO2).

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Unsuitable extinguishing media

Sulphur oxides High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Hydrogen chloride (HCl), Nitrogen oxides (NOx), Sulphur oxides, Carbon monoxide

5.3. Advice for firefighters

Do not inhale explosion and combustion gases. In case of fire: Wear self-contained breathing apparatus.

Additional information

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**

Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Special danger of slipping by leaking/spilling product. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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**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

Vapours can form explosive mixtures with air. Keep away from sources of ignition - No smoking.

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

Keep only in the original container in a cool, well-ventilated place. Protect from moisture.

Advice on storage compatibility

Store away from foodstuffs.

Further information on storage conditions

Keep container tightly closed and dry. Keep in a cool, well-ventilated place.

Protect against: Frost, Heat, UV-radiation/sunlight.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	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	650 mmol/mol	urine	Post shift

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1330-20-7	xylene			
Worker DNEL, long-term		dermal	systemic	108 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	289 mg/m ³
Worker DNEL, acute		inhalation	local	174 mg/m ³
Worker DNEL, long-term		inhalation	systemic	77 mg/m ³
Consumer DNEL, long-term		oral	systemic	1,6 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	108 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	174 mg/m ³
Consumer DNEL, acute		inhalation	local	174 mg/m ³
Consumer DNEL, long-term		inhalation	systemic	14,8 mg/m ³
100-41-4	ethylbenzene			
Worker DNEL, long-term		inhalation	systemic	77 mg/m ³
Worker DNEL, acute		inhalation	local	293 mg/m ³
Worker DNEL, long-term		dermal	systemic	180 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	15 mg/m ³
Consumer DNEL, long-term		oral	systemic	1,6 mg/kg bw/day
101-68-8	diphenylmethane-4,4'-diisocyanate			
Worker DNEL, long-term		inhalation	local	0,05 mg/m ³
Worker DNEL, acute		inhalation	local	0,10 mg/m ³
Consumer DNEL, long-term		inhalation	local	0,025 mg/m ³
Consumer DNEL, acute		inhalation	local	0,05 mg/m ³
25686-28-6	Methylenediphenyl diisocyanate, oligomers			
Worker DNEL, long-term		inhalation	systemic	0,05 mg/m ³
Worker DNEL, acute		inhalation	systemic	0,1 mg/m ³
Worker DNEL, long-term		inhalation	local	0,05 mg/m ³
Worker DNEL, acute		inhalation	local	0,1 mg/m ³
Worker DNEL, acute		dermal	systemic	50 mg/kg bw/day
Worker DNEL, acute		dermal	local	28,7 mg/cm ²
Consumer DNEL, long-term		inhalation	systemic	0,025 mg/m ³
Consumer DNEL, acute		inhalation	systemic	0,05 mg/m ³
Consumer DNEL, long-term		inhalation	local	0,025 mg/m ³
Consumer DNEL, acute		inhalation	local	0,05 mg/m ³
Consumer DNEL, acute		dermal	systemic	25 mg/kg bw/day
Consumer DNEL, acute		dermal	local	17,2 mg/cm ²
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		
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
Soil		2,31 mg/kg
Micro-organisms in sewage treatment plants (STP)		6,58 mg/l
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
101-68-8	diphenylmethane-4,4'-diisocyanate	
Freshwater		1,0 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1,0 mg/l
Soil		1,0 mg/kg
25686-28-6	Methylenediphenyl diisocyanate, oligomers	
Freshwater		1 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		1 mg/kg

8.2. Exposure controls
Appropriate engineering controls

The usual precautionary measures are to be adhered to when handling chemicals.
 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.

Protective and hygiene measures

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.

Eye/face protection

Eye glasses with side protection (DIN EN 166)

Hand protection

Tested protective gloves must be worn (DIN EN 374):
 FKM (fluoro rubber) - (0,7mm), Breakthrough time (maximum wearing time): 240 min.
 For special purposes, it is recommended to check the resistance to chemicals of the protective gloves

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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

Protective clothing

Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.
 gas filtering equipment (EN 141),. Filter material/medium: A2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Paste	
Colour:	grey	
Odour:	like: Solvent	
pH-Value:		not determined
Changes in the physical state		
Melting point:		not determined
Initial boiling point and boiling range:		not applicable
Flash point:		not applicable
Flammability		
Solid:		not applicable
Gas:		not applicable
Explosive properties		
not determined		
Lower explosion limits:		0,1 vol. %
Upper explosion limits:		7,8 vol. %
Ignition temperature:		> 200 °C
Auto-ignition temperature		
Solid:		not applicable
Gas:		not applicable
Decomposition temperature:		not determined
Vapour pressure: (at 20 °C)		< 100 hPa
Density (at 20 °C):		1,22 g/cm ³
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:		not determined
Vapour density:		not determined
Evaporation rate:		not determined
Solvent content:		7,70 %

9.2. Other information

SECTION 10: Stability and reactivity

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10.1. Reactivity

The product has not been tested.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reacts with : Alcohol, Amines, Acid, alkali

After contact with water: Formation of: Methanol, Carbon dioxide.

Heating causes rise in pressure with risk of bursting.

10.4. Conditions to avoid

Protect from moisture.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

Possible in traces: Isocyanates.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
1330-20-7	xylene				
	oral	LD50 mg/kg 4300	Rat	GESTIS	
	dermal	LD50 mg/kg >1700	Rabbit	GESTIS	
	inhalative (4 h) vapour	LC50 21,7 mg/l	Rat	GESTIS	
100-41-4	ethylbenzene				
	oral	LD50 mg/kg 3500	Rat	GESTIS	
	dermal	LD50 mg/kg 15400	Rabbit	GESTIS	
	inhalative (4 h) vapour	LC50 17,2 mg/l	Rat		
101-68-8	diphenylmethane-4,4'-diisocyanate				
	oral	LD50 mg/kg >2000	Rat		
	dermal	LD50 mg/kg >9400	Rabbit		
	inhalative vapour	ATE 11 mg/l			
25686-28-6	Methylenediphenyl diisocyanate, oligomers				
	oral	LD50 mg/kg >5000	Rat		
	inhalative vapour	ATE 11 mg/l			

Irritation and corrosivity

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

Frequently or prolonged contact with skin may cause dermal irritation.

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Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (diphenylmethane-4,4'-diisocyanate; Methylenediphenyl diisocyanate, oligomers)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Further information

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

SECTION 12: Ecological information
12.1. Toxicity

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
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	
101-68-8	diphenylmethane-4,4'-diisocyanate					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Brachydanio rerio (zebra-fish)		
	Acute algae toxicity	ErC50 >1640 mg/l	72 h	Scenedesmus subspicatus		
	Crustacea toxicity	NOEC >10 mg/l	21 d	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(>100 mg/l)	3 h	Activated sludge		
25686-28-6	Methylenediphenyl diisocyanate, oligomers					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Brachydanio rerio (zebra-fish)		
	Acute crustacea toxicity	EC50 >1000 mg/l	48 h	Daphnia magna (Big water flea)		
	Crustacea toxicity	NOEC >10 mg/l	21 d	Daphnia magna (Big water flea)		
	Acute bacteria toxicity	(>100 mg/l)	3 h	Activated sludge		

12.2. Persistence and degradability

There are no data available on the mixture itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
101-68-8	diphenylmethane-4,4'-diisocyanate			
	OECD 302 C	0%	28	
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
1330-20-7	xylene	3
100-41-4	ethylbenzene	3,15

BCF

CAS No	Chemical name	BCF	Species	Source
1330-20-7	xylene	25,9	Oncorhynchus mykiss (Rainbow trout)	
101-68-8	diphenylmethane-4,4'-diisocyanate	200	Cyprinus carpio (Common Carp)	

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

not applicable

12.6. 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
Advice on disposal

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

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

Waste disposal number of waste from residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Waste disposal number of 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: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |
| 14.3. Transport hazard class(es): | No dangerous good in sense of this transport regulation. |
| 14.4. Packing group: | No dangerous good in sense of this transport regulation. |

Marine transport (IMDG)

- | | |
|---------------------------------------|--|
| 14.1. UN number: | No dangerous good in sense of this transport regulation. |
| 14.2. UN proper shipping name: | No dangerous good in sense of this transport regulation. |

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14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.
 Marine pollutant: no

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: No dangerous good in sense of this transport regulation.

14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.

14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.

14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No dangerous good in sense of this transport regulation.

Other applicable information

Fire test in accordance with 33.2.1.4 "Manual of test and criteria" (recommendations on the TRANSPORT OF DANGEROUS GOODS [United Nations]): burn rate: $\leq 2, 2 \text{ mm / s}$ (no hazardous goods according to class 4.1 [ADR])

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 56: diphenylmethane-4,4'-diisocyanate

2004/42/EC (VOC): 7,7 % (94 g/l)

Subcategory according to Directive 2004/42/EC: Bodyfiller/stopper - All types, VOC limit value: 250 g/l

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 juvenils 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 contaminating class (D): 2 - clearly water contaminating

Additional information

The regulations of the national employment safety and employment protection commission about the handling for polyurethane/epoxy have to be observed.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

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

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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%

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
EUH204	Contains isocyanates. 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.

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