Safety Data Sheet

according to UK REACH Regulation

DINITROL 425 UV Grey

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

1.1. Product identifier

DINITROL 425 UV Grey

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

Use of the substance/mixture

Adhesives, sealants

1.3. Details of the supplier of the safety data sheet

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	
Responsible Department:	msds@dinol.com	

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

GB CLP Regulation

This mixture is not classified as hazardous in accordance with GB CLP Regulation.

2.2. Label elements

GB CLP Regulation

Special labelling of certain mixtures

EUH204	Contains isocyanates. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust. Restricted to professional users.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
28553-12-0	di-"isononyl" phthalate			10 - < 20 %
	249-079-5		01-2119430798-28	
	Aquatic Chronic 4; H413			
	reaction mass of ethylbenzene and xylene			< 10 %
	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; H226 H332 H312 H315 H319 H335 H373 H304			
13463-67-7	titanium dioxide			1 - < 10 %
	236-675-5	022-006-00-2	01-2119489379-17	
	Carc. 2; H351			
101-68-8	diphenylmethane-4,4'-diisocyanate			< 0,1 %
	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			
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate			0,025 - < 0,1 %
	247-722-4	615-006-00-4	01-2119454791-34	
	Carc. 2, Acute Tox. 1, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H351 H330 H315 H319 H334 H317 H335 H412			

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

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	< 10 %
	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		
101-68-8	202-966-0	diphenylmethane-4,4'-diisocyanate	< 0,1 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >9400 mg/kg; oral: LD50 = >2000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 STOT SE 3; H335: >= 5 - 100		
26471-62-5	247-722-4	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate	0,025 - < 0,1 %
	inhalation: ATE = 0,05 mg/l (vapours); inhalation: ATE = 0,005 mg/l (dusts or mists); dermal: LD50 = > 12200 mg/kg Resp. Sens. 1; H334: >= 0,1 - 100		

Further Information

The homogeneous mixing of this product is controlled by continuous physical tests. Formerly dusty raw materials are completely integrated into the liquid/pasty mass. Possible AGW-values for solid substances are therefore not given, as there is no longer any risk of inhalation of these substances (when handling this mixture).

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 but breathing normally, 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

If swallowed, rinse mouth with water (only if the person is conscious).
Do NOT induce vomiting.
Call a physician immediately.
Put victim at rest, cover with a blanket and keep warm.

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

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

Unsuitable extinguishing media

Full 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

Use water spray jet to protect personnel and to cool endangered containers. 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 uncontrolled discharge of product into the environment.
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

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.

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.

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.

Hints on joint storage

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

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
28553-12-0	Diisononyl phthalate	-	5		TWA (8 h)	WEL
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL
13463-67-7	Titanium dioxide, respirable	-	4		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
	reaction mass of ethylbenzene and xylene		
Worker DNEL, long-term	inhalation	systemic	211 mg/m³
Worker DNEL, long-term	inhalation	local	221 mg/m³
Worker DNEL, acute	inhalation	systemic	442 mg/m³
Worker DNEL, long-term	dermal	systemic	180 mg/kg bw/day
Worker DNEL, acute	inhalation	local	289 mg/m³
Consumer DNEL, long-term	oral	systemic	1,6 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	14,8 mg/m³
Consumer DNEL, long-term	inhalation	local	65,3 mg/m³
Consumer DNEL, acute	inhalation	systemic	260 mg/m³
Consumer DNEL, acute	inhalation	local	260 mg/m³
101-68-8	diphenylmethane-4,4'-diisocyanate		
Worker DNEL, long-term	inhalation	local	0,05 mg/m³
Worker DNEL, acute	inhalation	local	0,10 mg/m³
Consumer DNEL, long-term	inhalation	local	0,025 mg/m³
Consumer DNEL, acute	inhalation	local	0,05 mg/m³
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate		
Worker DNEL, long-term	inhalation	local	0,035 mg/m³
Worker DNEL, acute	inhalation	local	0,14 mg/m³
Worker DNEL, long-term	inhalation	systemic	0,035 mg/m³
Worker DNEL, acute	inhalation	systemic	0,14 mg/m³

PNEC values

CAS No	Substance
Environmental compartment	Value
	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
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
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate
Freshwater	0,0125 mg/l
Marine water	0,00125 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.

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) - (0,7mm), Breakthrough time:: 240 min.
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

Protective clothing

Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.
short-term :
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
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	not applicable
Auto-ignition temperature:	not self-igniting
Decomposition temperature:	not determined
pH-Value:	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:	not determined
Density (at 20 °C):	1,37 g/cm³
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

not determined

Sustaining combustion:	No data available

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Other safety characteristics

Evaporation rate:	not determined
Solvent content:	7,40 %

SECTION 10: Stability and reactivity

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 hazard classes as defined in GB CLP Regulation

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) 11111 mg/kg; ATE (inhalation vapour) 202,0 mg/l; ATE (inhalation dust/mist) 15,15 mg/l

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			
101-68-8	diphenylmethane-4,4'-diisocyanate					
	oral	LD50 mg/kg	>2000	Rat		
	dermal	LD50 mg/kg	>9400	Rabbit		
	inhalation vapour	ATE	11 mg/l			
	inhalation dust/mist	ATE	1,5 mg/l			
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate					
	dermal	LD50 mg/kg	> 12200	Rabbit		
	inhalation vapour	ATE	0,05 mg/l			
	inhalation dust/mist	ATE mg/l	0,005			

Irritation and corrosivity

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

Sensitising effects

Based on available data, the classification criteria are not met.
Contains isocyanates. May produce an allergic reaction.

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.

Information on likely routes of exposure

No information available.

Specific effects in experiment on an animal

No information available.

Additional information on tests

No information available.

Practical experience

No information available.

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

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

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
101-68-8	diphenylmethane-4,4'-diisocyanate						
	Acute fish toxicity	LC50	>1000 mg/l	96 h	Danio rerio (zebrafish)		
	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	EC50	>100 mg/l ( )	3 h	Activated sludge		
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate						
	Acute fish toxicity	LC50	133 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50	4300 mg/l	96 h	Chlorella vulgaris		
	Acute bacteria toxicity	EC50	>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 302C	0%	28	
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

BCF

CAS No	Chemical name	BCF	Species	Source
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

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

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

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:	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 or ID 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 pollutant:	no

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

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: <= 2, 2 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 40, Entry 52, Entry 75

Directive 2004/42/EC on VOC in paints and varnishes:	6,08 % 83,3 g/l
Subcategory according to Directive 2004/42/EC:	Bodyfiller/stopper - All types, VOC limit value: 250 g/l
Information according to Directive 2012/18/EU (SEVESO III):	Not subject to 2012/18/EU (SEVESO III)

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

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

SECTION 16: Other information

Abbreviations and acronyms

Flam. Liq: Flammable liquids
Acute Tox: Acute toxicity
Asp. Tox: Aspiration hazard
Skin Irrit: Skin irritation
Eye Irrit: Eye irritation
Resp. Sens: Respiratory sensitisation
Skin Sens: Skin sensitisation
Carc: Carcinogenicity
STOT SE: Specific target organ toxicity - single exposure
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Chronic: Chronic aquatic hazard
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%

Relevant H and EUH statements (number and full text)

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.
H330	Fatal if inhaled.
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.
H413	May cause long lasting harmful effects to aquatic life.
EUH204	Contains isocyanates. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

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