

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 1 of 16

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

1.1. Product identifier

DINITROL 860 A

UFI: 86X6-C7E5-300M-S7US

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

Use of the substance/mixture

Adhesives, sealants, Curing agent

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

Acute Tox. 4; H332

Skin Irrit. 2; H315

Eye Irrit. 2; H319

Resp. Sens. 1; H334

Skin Sens. 1; H317

Carc. 2; H351

STOT SE 3; H335

STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Diphenylmethanediisocyanate, isomers and homologues

MDI-based polyisocyanate prepolymer

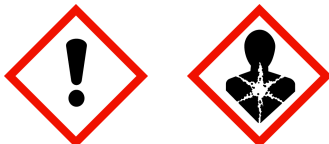
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

diphenylmethane-2,4'-diisocyanate

2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate

Signal word: Danger

Pictograms:



Hazard statements

H315

Causes skin irritation.

H317

May cause an allergic skin reaction.

H319

Causes serious eye irritation.

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 2 of 16

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.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.

Special labelling of certain mixtures

EUH204	Contains isocyanates. May produce an allergic reaction. Restricted to professional users. As from 24 August 2023 adequate training is required before industrial or professional use.
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Labelling of packages where the contents do not exceed 125 ml

Signal word: Danger

Pictograms:



Hazard statements

H317-H334-H351

Precautionary statements

P280-P304+P340-P308+P313-P405

2.3. Other hazards

health hazards: Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 3 of 16

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues			40 - < 45 %
	618-498-9	615-005-01-6		
	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			
	MDI-based polyisocyanate prepolymer			25 - < 30 %
	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			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate			10 - < 15 %
	202-966-0			
	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			
5873-54-1	diphenylmethane-2,4'-diisocyanate			5 - < 10 %
	227-534-9	615-005-00-9	01-2119480143-45	
	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			
2530-83-8	3-Glycidoxypropyltrimethoxysilane			1 - < 5 %
	219-784-2		01-2119513212-58	
	Eye Dam. 1; H318			
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate			< 1 %
	219-799-4	615-005-00-9	01-2119927323-43	
	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.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
9016-87-9	618-498-9	Diphenylmethanediisocyanate, isomers and homologues	40 - < 45 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = >9400 mg/kg; oral: LD50 = >10000 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	
		MDI-based polyisocyanate prepolymer	25 - < 30 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists)	
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	10 - < 15 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: LD50 = 9200 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	
5873-54-1	227-534-9	diphenylmethane-2,4'-diisocyanate	5 - < 10 %
		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	
2530-83-8	219-784-2	3-Glycidoxypropyltrimethoxysilane	1 - < 5 %
		dermal: LD50 = 4250 mg/kg; oral: LD50 = 8025 mg/kg	
2536-05-2	219-799-4	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate	< 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	

Safety Data Sheet

according to UK REACH Regulation

Revision date: 24.05.2024

DINITROL 860 A

Product code: 80860

Page 4 of 16

Further 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

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

Remove contaminated, saturated clothing immediately.

After inhalation

Remove casualty to fresh air and keep warm and at rest. In case of troubles or persistent symptoms, consult an ophthalmologist.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂)
Extinguishing powder
alcohol resistant foam

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Formation of: Pyrolysis products, toxic; Nitrogen oxides (NO_x); Hydrocyanic acid (hydrocyanic acid).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

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****General advice**

Provide adequate ventilation.
Wear personal protection equipment.
Special danger of slipping by leaking/spilling product.

For emergency responders

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

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 5 of 16

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not allow to enter into surface water or drains.

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**

Provide adequate ventilation as well as local exhaust at critical locations.
Handle and open container with care.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Avoid contact with skin and eyes.
Keep away from food, drink and animal feedingstuffs.
When using do not eat, drink or smoke.
Protect skin by using skin protective cream.
Take off contaminated clothing and wash it before reuse.
Keep away from food, drink and animal feedingstuffs.

Further information on handling

Do not breathe vapour.
Avoid contact with skin and eyes.
Wash hands before breaks and after work.

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.

Hints on joint storage

Do not store together with: Water, Oxidising agent.
Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. storage temperature: <0°C - < 50°C.

7.3. Specific end use(s)

Adhesives, sealants

SECTION 8: Exposure controls/personal protection

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 6 of 16

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
-	Isocyanates, all (as -NCO) Except methyl isocyanate	-	0.02		TWA (8 h)	WEL
		-	0.07		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
-	Isocyanates (applies to HDI, IPDI, TDI and MDI)	isocyanate-derived diamine (creatinine)	1 µmol/mol	urine	At the end of the period of exposure

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 7 of 16

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
5873-54-1	diphenylmethane-2,4'-diisocyanate			
Worker DNEL, long-term	inhalation	systemic	0,05 mg/m ³	
Worker DNEL, acute	inhalation	systemic	0,10 mg/m ³	
Worker DNEL, long-term	inhalation	local	0,05 mg/m ³	
Worker DNEL, acute	inhalation	local	0,10 mg/m ³	
Worker DNEL, acute	dermal	systemic	50,0 mg/kg bw/day	
Worker DNEL, acute	dermal	local	28,7 mg/person/day	
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	25,0 mg/kg bw/day	
Consumer DNEL, acute	dermal	local	17,2 mg/person/day	
Consumer DNEL, acute	oral	systemic	20,0 mg/kg bw/day	
2530-83-8	3-Glycidoxypentyltrimethoxysilane			
Worker DNEL, long-term	inhalation	systemic	147 mg/m ³	
Worker DNEL, long-term	dermal	systemic	21 mg/kg bw/day	
Consumer DNEL, long-term	inhalation	systemic	43,5 mg/m ³	
Consumer DNEL, long-term	dermal	systemic	12,5 mg/kg bw/day	
Consumer DNEL, long-term	oral	systemic	12,5 mg/kg bw/day	
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate			
Worker DNEL, long-term	inhalation	systemic	0,05 mg/m ³	
Worker DNEL, acute	inhalation	systemic	0,10 mg/m ³	
Worker DNEL, long-term	inhalation	local	0,05 mg/m ³	
Worker DNEL, acute	inhalation	local	0,10 mg/m ³	
Worker DNEL, acute	dermal	systemic	50,0 mg/kg bw/day	
Worker DNEL, acute	dermal	local	28,7 mg/person/day	
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	25,0 mg/kg bw/day	
Consumer DNEL, acute	dermal	local	17,2 mg/person/day	

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 8 of 16

Consumer DNEL, acute	oral	systemic	20,0 mg/kg bw/day
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PNEC values

CAS No	Substance	Value
Environmental compartment		
5873-54-1	diphenylmethane-2,4'-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
2530-83-8	3-Glycidoxypropyltrimethoxysilane	
Freshwater		1,0 mg/l
Marine water		0,1 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		0,36 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,14 mg/kg
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-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

8.2. Exposure controls



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.

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 suitable protective clothing.

Respiratory protection

Work in well-ventilated zones or use proper respiratory protection.

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 9 of 16

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:	brown	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		> 300 °C
Flammability:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		> 200 °C
Auto-ignition temperature:		>400 °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:		not determined
Density (at 20 °C):		1,17 g/cm ³
Relative vapour density:		not determined
Particle characteristics:		not applicable

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 oxidising.		

Other safety characteristics

Evaporation rate:	not determined
Softening point:	not determined
Viscosity / dynamic: (at 23 °C)	500 -1000 mPa·s

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

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 10 of 16

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Reacts with : Alcohol; Amines; Alkali (lye); Acids

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Keep away from: Alcohol; Amines; Alkali (lye); Acids

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Harmful if inhaled.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 13,33 mg/l; ATE (inhalation dust/mist) 1,818 mg/l

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 11 of 16

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues				
	oral	LD50 >10000 mg/kg	Rat		
	dermal	LD50 >9400 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
	MDI-based polyisocyanate prepolymer				
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate				
	oral	LD50 9200 mg/kg	Rat	GESTIS	
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
5873-54-1	diphenylmethane-2,4'-diisocyanate				
	oral	LD50 >2000 mg/kg	Rat		
	dermal	LD50 >9400 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			
2530-83-8	3-Glycidoxypropyltrimethoxysilane				
	oral	LD50 8025 mg/kg	Rat		
	dermal	LD50 4250 mg/kg	Rabbit		
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate				
	oral	LD50 >2000 mg/kg	Rat		
	dermal	LD50 >9400 mg/kg	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation.

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

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Diphenylmethanediisocyanate, isomers and homologues; MDI-based polyisocyanate prepolymer; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; diphenylmethane-2,4'-diisocyanate; 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate)

May cause an allergic skin reaction. (Diphenylmethanediisocyanate, isomers and homologues; MDI-based polyisocyanate prepolymer; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; diphenylmethane-2,4'-diisocyanate; 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate)

Contains isocyanates. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 12 of 16

Suspected of causing cancer. (Diphenylmethanediisocyanate, isomers and homologues; MDI-based polyisocyanate prepolymer; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; diphenylmethane-2,4'-diisocyanate; 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate)
Germ cell mutagenicity: 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. (Diphenylmethanediisocyanate, isomers and homologues; MDI-based polyisocyanate prepolymer; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; diphenylmethane-2,4'-diisocyanate)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Diphenylmethanediisocyanate, isomers and homologues; MDI-based polyisocyanate prepolymer; 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

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

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

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.

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 13 of 16

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Cyprinus carpio (Common Carp)		
	Acute bacteria toxicity	EC50 >100 mg/l ()	3 h			
5873-54-1	diphenylmethane-2,4'-diisocyanate					
	Acute fish toxicity	LC50 55 mg/l	96 h	Cyprinus carpio (Common Carp)		
2530-83-8	3-Glycidoxypropyltrimethoxysilane					
	Acute fish toxicity	LC50 55 mg/l	96 h	Cyprinus carpio (Common Carp)		
	Acute algae toxicity	ErC50 350 mg/l	96 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 324 mg/l	48 h	Daphnia magna (Big water flea)		
2536-05-2	2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Danio rerio (zebrafish)		
	Acute algae toxicity	ErC50 >1640 mg/l	72 h	Scenedesmus subspicatus		

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
2530-83-8	3-Glycidoxypropyltrimethoxysilane	0,5

BCF

CAS No	Chemical name	BCF	Species	Source
9016-87-9	Diphenylmethanediisocyanate, isomers and homologues	<14		42d, OECD 305C

12.4. Mobility in soil

The product has not been tested.

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

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 14 of 16

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

080501 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes not otherwise specified in 08; waste isocyanates; 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

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

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.

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 information available.

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 56, Entry 75

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

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 15 of 16

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): 1 - slightly hazardous to water

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

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

Acute Tox: Acute toxicity
 Skin Irrit: Skin irritation
 Eye Dam: Eye damage
 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
 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%

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Carc. 2; H351	Calculation method
STOT SE 3; H335	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

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.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.

Safety Data Sheet

according to UK REACH Regulation

DINITROL 860 A

Revision date: 24.05.2024

Product code: 80860

Page 16 of 16

H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)