Safety Data Sheet

according to 29 CFR 1910.1200(g)

DINITROL 410 UV NF Black

1. Identification

Product identifier

DINITROL 410 UV NF Black

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Adhesives, sealants

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	
Responsible Department:	msds@dinol.com	

Supplier

Company name:	DINOL U.S. Inc.	
Street:	8500 Cotter Street, Lewis Center	
Place:	USA-43035 Ohio	
Telephone:	740-548-1656	Telefax: 740-548-1657
e-mail:	info@dinolus.com	
Internet:	www.dinol.com	

Emergency phone number: 3E Company Emergency +1-866-404-4230

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Respiratory or skin sensitization: Resp. Sens. 1
Respiratory or skin sensitization: Skin Sens. 1
Carcinogenicity: Carc. 2
Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:

Hazard statements

May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Suspected of causing cancer
May cause damage to organs through prolonged or repeated exposure

Precautionary statements

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.

Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.
Wash contaminated clothing before reuse.
If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a poison center/doctor.
If exposed or concerned: Get medical advice/attention.
Store locked up.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
	reaction mass of ethylbenzene and xylene	9.9 %
101-68-8	diphenylmethane-4,4'-diisocyanate	0.49 %
25686-28-6	Methylenediphenyl diisocyanate, modified	0.19 %
4083-64-1	4-isocyanatosulphonyltoluene; tosyl isocyanate	0.09 %

4. First-aid measures

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

Do NOT induce vomiting. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

Nausea, Dizziness, Headache.

Indication of any immediate medical attention and special treatment needed

No information available.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the chemical

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

Special protective equipment and precautions for fire-fighters

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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

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

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Other information

Special danger of slipping by leaking/spilling product. 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.

Reference to other sections

Safe handling: see section 7
Personal protection equipment (PPE): see section 8
Disposal: see section 13

7. Handling and storage

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

Vapors may 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.

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.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m³	f/cc	Category	Origin
101-68-8	Methylene bisphenyl isocyanate (MDI)	C 0.02	C 0.2		Ceiling	PEL
101-68-8	Methylene bisphenyl isocyanate	0.005	0.05		TWA (8 h)	REL
		C 0.02	C 0.2		Ceiling	REL

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 (DIN 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.
gas filtering equipment (EN 141)., Filter material/medium: A2

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Paste
Color:	black
Odor:	like: Solvent

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not applicable
Flash point:	not applicable

Flammability

Solid/liquid:	not applicable
Gas:	not applicable

Explosive properties

not determined

Lower explosion limits:	0,1 vol. %
Upper explosion limits:	7,8 vol. %
Auto-ignition temperature:	> 200 °C

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable
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
Vapor pressure: (at 20 °C)	< 100 hPa
Density (at 20 °C):	1,22 g/cm³
Relative vapour density:	not determined

Other information

Other safety characteristics

Solvent content:	8,00 %
Evaporation rate:	not determined

Further 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])

10. Stability and reactivity

Reactivity

The product has not been tested.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

Reacts with : Alcohol, Amines, Acid, alkali
After contact with water: Formation of: Methanol, Carbon dioxide.
Heating causes rise in pressure with risk of bursting.

Conditions to avoid

Protect from moisture.

Incompatible materials

No information available.

Hazardous decomposition products

Possible in traces: Isocyanates.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

ATEmix tested

	Dose	Species	Source
LD50, oral	13750 mg/kg		
LC50, inhalation (vapor) (4 h)	138 mg/l		

CAS No	Components					
	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 aerosol	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 aerosol	ATE	1,5 mg/l			
25686-28-6	Methylenediphenyl diisocyanate, modified					
	oral	LD50 mg/kg	>5000	Rat		
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 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.

Sensitizing effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled (diphenylmethane-4,4'-diisocyanate; Methylenediphenyl diisocyanate, modified; 4-isocyanatosulphonyltoluene; tosyl isocyanate)
May cause an allergic skin reaction (diphenylmethane-4,4'-diisocyanate; Methylenediphenyl diisocyanate, modified)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer (diphenylmethane-4,4'-diisocyanate; Methylenediphenyl diisocyanate, modified)
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.

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

May cause damage to organs through prolonged or repeated exposure (reaction mass of ethylbenzene and xylene)

Carcinogenicity (IARC): 4,4'-Methylenediphenyl diisocyanate (CAS 101-68-8) is listed in group 3.

Aspiration hazard

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

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.

12. Ecological information

Persistence and degradability

There are no data available on the mixture itself.

Bioaccumulative potential

There are no data available on the mixture itself.

Mobility in soil

There are no data available on the mixture itself.

Endocrine disrupting properties

Endocrine disrupting potential No information available.

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.

13. Disposal considerations

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:

Contaminated packaging

Remove according to the regulations.

14. Transport information

US DOT 49 CFR 172.101

Proper shipping name:	No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	No dangerous good in sense of this transport regulation.
Transport hazard class(es):	No dangerous good in sense of this transport regulation.
Packing group:	No dangerous good in sense of this transport regulation.
Marine pollutant:	no

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	No dangerous good in sense of this transport regulation.
UN proper shipping name:	No dangerous good in sense of this transport regulation.
Transport hazard class(es):	No dangerous good in sense of this transport regulation.
Packing group:	No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

No dangerous good in sense of this transport regulation.

Transport in bulk according to Annex II of MARPOL 73/78 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: <= 2, 2 mm / s (no hazardous goods according to class 4.1 [ADR])

15. Regulatory information

U.S. Regulations

National Inventory TSCA

Substance/product listed in the following inventories: TSCA

National regulatory information

SARA Section 304 CERCLA:

Methylenebis(phenylisocyanate)(MDI) (101-68-8): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

reaction mass of ethylbenzene and xylene (-): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Methylenebis(phenylisocyanate)(MDI) (101-68-8): Delayed (chronic) health hazard, Immediate (acute) health hazard

Methylenediphenyl diisocyanate, modified (25686-28-6): Delayed (chronic) health hazard, Immediate (acute) health hazard

4-isocyanatosulphonyltoluene; tosyl isocyanate (4083-64-1): Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Methylenebis(phenylisocyanate)(MDI) (101-68-8): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Methylenebis(phenylisocyanate)(MDI) (101-68-8)

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

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/none

16. Other information

Changes

Revision date:	06.10.2021
Revision No:	1,1

This data sheet contains changes from the previous version in section(s): 2,3,10,14,15.

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
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%

Other data

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.)