Safety Data Sheet

according to 29 CFR 1910.1200(g)

DINITROL 445 Spray

1. Identification

Product identifier

DINITROL 445 Spray

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Anti-corrosive coating

Details of the supplier of the safety data sheet

Manufacturer

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

Supplier

Company name:	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

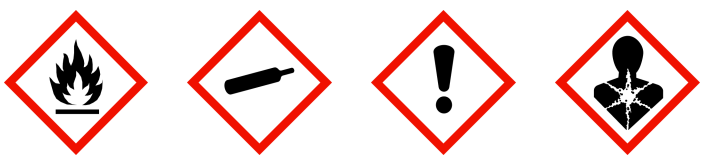
Flammable aerosols: Flam. Aerosol 1
Gases under pressure: Compressed gas
Carcinogenicity: Carc. 2
Skin corrosion/irritation: Skin Irrit. 2
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)
Specific target organ toxicity repeated or prolonged exposure: STOT RE 1
Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:



Hazard statements

Extremely flammable aerosol
Contains gas under pressure; may explode if heated
Causes skin irritation
May cause an allergic skin reaction

May cause drowsiness or dizziness
Suspected of causing cancer
Causes damage to organs through prolonged or repeated exposure
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.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use.
Do not breathe vapour/aerosol.
Wash water thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center/doctor if you feel unwell.
If exposed or concerned: Get medical advice/attention.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Additional advice on labelling

The classification of the aerosol was carried out according to EC 1272/2008, Annex 1, point 1.1.3.7.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Relevant ingredients

CAS No	Components	Quantity
141-78-6	ethyl acetate	23.57 %
	reaction mass of ethylbenzene and xylene	3.998 %
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	3.525 %
1330-20-7	xylene	2.569 %
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	1.754 %
100-41-4	ethylbenzene	0.8681 %
	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified	0.8681 %
1333-86-4	Carbon Black	0.3552 %
147900-93-4	Fatty acids,C18-unsatd. , trimers, compds. with oleylamine	0.1278 %
85711-55-3	Fatty acids, tall-oil, compds. with oleylamine	0.0852 %

4. First-aid measures

Description of first aid measures

General information

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

Never give anything by mouth to an unconscious person or a person with cramps.
If unconscious but breathing normally, place in recovery position and 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

Change contaminated clothing.
Wash with plenty of water/Soap.
If skin irritation occurs: Get medical advice/attention.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

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

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

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

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

Hazardous decomposition products: Danger of serious damage to health by prolonged exposure.
Do not inhale explosion and combustion gases. Use appropriate respiratory protection.

Special protective equipment and precautions for fire-fighters

Use water spray/stream to protect personnel and to cool endangered containers.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Supress gases/vapors/mists with water spray jet.
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

Remove all sources of ignition. Provide adequate ventilation.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wear personal protection equipment.
Avoid contact with skin, eyes and clothes.

For emergency responders

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

Environmental precautions

Do not allow to enter into surface water or drains.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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.

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

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

Advice on protection against fire and explosion

Take precautionary measures against static discharges.
Do not spray on naked flames or any incandescent material.
Keep away from sources of ignition - No smoking.
Heating causes rise in pressure with risk of bursting.

Advice on general occupational hygiene

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.
Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.
Remove contaminated, saturated clothing immediately.
Do not breathe gas/vapour/aerosol.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.
Do not keep the container sealed. Keep container dry.
Keep away from heat. Protect from direct sunlight.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No	Substance	ppm	mg/m³		Category	Origin
75-28-5	Butane: isobutane	1000	2370		STEL (15 min)	ACGIH-2025
106-97-8	Butane: n-butane	1000	2370		STEL (15 min)	ACGIH-2025
1333-86-4	Carbon black (in presence of polycyclic aromatic hydrocarbons (PAHs)) (as PAHs)	-	0.1		TWA (8 h)	REL
1333-86-4	Carbon black (inhalable fraction)		3		TWA (8 h)	ACGIH-2025
1333-86-4	Carbon black	-	3.5		TWA (8 h)	PEL
141-78-6	Ethyl acetate	400	1400		TWA (8 h)	PEL
		400	1400		TWA (8 h)	REL
		400	1440		TWA (8 h)	ACGIH-2025
100-41-4	Ethyl benzene	100	435		TWA (8 h)	PEL
		100	435		TWA (8 h)	REL
		125	545		STEL (15 min)	REL
100-41-4	Ethyl benzene	20	-		TWA (8 h)	ACGIH-2025
75-28-5	Isobutane	800	1900		TWA (8 h)	REL
106-97-8	n-Butane	800	1900		TWA (8 h)	REL
74-98-6	Propane	1000	1800		TWA (8 h)	PEL
		1000	1800		TWA (8 h)	REL
		-	-		Asphyxiant	ACGIH-2025
14807-96-6	Talc (containing no asbestos and less than 1% quartz) (resp)	-	2		TWA (8 h)	REL
14807-96-6	Talc (containing no asbestos) respirable dust	706 mp/m³	-		TWA (8 h)	PEL
14807-96-6	Talc containing no asbestos fibers (respirable fraction)		2		TWA (8 h)	ACGIH-2025
1330-20-7	Xylene: mixed isomers	20			TWA (8 h)	ACGIH-2025
1330-20-7	Xylenes (o-,m-,p-isomers)	100	435		TWA (8 h)	PEL

Biological Exposure Indices (BEI-ACGIH)

CAS No	Substance	Determinant	Value	Test material	Sampling time
1330-20-7	XYLENES (technical or commercial grade)	Methylhippuric acids (creatinine)	0.3 g/g	urine	End of shift
100-41-4	Ethyl benzene	Sum of mandelic acid and phenylglyoxylic acid (creatinine)	0.15 g/g	urine	End of shift

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.
Thickness of the glove material : > 0,12 mm
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Protective gloves have to be replaced at the first sign of deterioration.
Protect skin by using skin protective cream.

Skin protection

Wear anti-static footwear and clothing

Respiratory protection

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Aerosol
Color:	black
Odor:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not applicable
Flammability:	not applicable
Lower explosion limits:	1,5 vol. %
Upper explosion limits:	10,9 vol. %
Flash point:	< -10 °C
Auto-ignition temperature:	210 °C
Decomposition temperature:	not determined
pH-Value:	not determined
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
Vapor pressure: (at 20 °C)	4000 hPa
Density (at 20 °C):	0,81 g/cm³
Relative vapour density:	not determined
Particle characteristics:	not determined

Other information

Information with regard to physical hazard classes

Explosive properties
not determined

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties
not determined

Other safety characteristics

Evaporation rate:	not determined
Solvent content:	72,5 %
Solid content:	27,5 %
Viscosity / dynamic:	not determined

Further Information

No information available.

10. Stability and reactivity

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

Conditions to avoid

Keep away from heat. Ignition hazard.

Incompatible materials

No information available.

Hazardous decomposition products

Carbon monoxide

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

ATEmix calculated

ATE (oral) > 5000 mg/kg; ATE (dermal) > 5000 mg/kg; ATE (inhalation gas) > 20000 ppm

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
141-78-6	ethyl acetate					
	oral	LD50 mg/kg	5620	Rat		
	dermal	LD50 mg/kg	>20000	Rabbit		
	inhalation (4 h) vapour	LC50	50 mg/l	Rat		
	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 gas	ATE ppm	4500			
	Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)					
	oral	LD50 mg/kg	>15000	Rat		
	dermal	LD50 mg/kg	>3400	Rat		
1330-20-7	xylene					
	oral	LD50 mg/kg	8700	Rat		
	dermal	LD50 mg/kg	2000	Rabbit		
	inhalation (4 h) vapour	LC50 mg/l	10-20	Rat		
	inhalation gas	ATE ppm	4500			
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics					
	oral	LD50 mg/kg	> 5000	Rat		
	dermal	LD50 mg/kg	> 5000	Rabbit		
	inhalation (4 h) vapour	LC50 mg/l	> 5000	Rat		
100-41-4	ethylbenzene					
	oral	LD50 mg/kg	3500	Rat	GESTIS	
	dermal	LD50 mg/kg	15400	Rabbit	GESTIS	
	inhalation (4 h) vapour	LC50	17,2 mg/l	Rat		
	inhalation gas	ATE ppm	4500			
	Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified					
	oral	LD50 mg/kg	3492	Rat		
	dermal	LD50 mg/kg	>3160	Rabbit		

	inhalation vapour	LC50 mg/l	>6193	Rat		
1333-86-4	Carbon Black					
	oral	LD50 mg/kg	> 8000	Rat		
147900-93-4	Fatty acids,C18-unsatd. , trimers, compds. with oleylamine					
	oral	LD50 mg/kg	> 1570	Rat		
85711-55-3	Fatty acids, tall-oil, compds. with oleylamine					
	oral	LD50 mg/kg	> 2000	Rat		

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitizing effects

May cause an allergic skin reaction (Fatty acids,C18-unsatd. , trimers, compds. with oleylamine; Fatty acids, tall-oil, compds. with oleylamine)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer (Carbon Black)

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

May cause drowsiness or dizziness (ethyl acetate)

Specific target organ toxicity (STOT) - repeated exposure

Causes damage to organs through prolonged or repeated exposure (Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%))

May cause damage to organs through prolonged or repeated exposure

Carcinogenicity (IARC): Talc not containing asbestos or asbestiform fibres (CAS 14807-96-6) is listed in group 2A. Xylenes (CAS 1330-20-7) is listed in group 3. Ethylbenzene (CAS 100-41-4) is listed in group 2B. Carbon black (CAS 1333-86-4) is listed in group 2B.

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

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

Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

U.S. DOT 49 CFR 172.101

UN number or ID number:	UN 1950
Proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Hazard label:	2.1

Marine transport (IMDG)

UN number or ID number:	UN 1950
UN proper shipping name:	AEROSOLS
Transport hazard class(es):	2.1
Packing group:	-
Hazard label:	2.1

Marine pollutant:	no
Special Provisions:	63, 190, 277, 327, 344, 959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 1950
UN proper shipping name:	AEROSOLS, flammable
Transport hazard class(es):	2.1
Packing group:	-
Hazard label:	2.1

Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203

IATA-max. quantity - Cargo: 150 kg

Other applicable information (air transport)

E0

Passenger-LQ: Y203

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

Warning: Gases under pressure

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

Other applicable information

Stowage Code:
SW1 Protected from sources of heat.
SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre:Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

Segregation Code:
SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

15. Regulatory information

U.S. Regulations

National Inventory TSCA

Substance/product listed in the following inventories: TSCA

National regulatory information

SARA Section 304 CERCLA:
Ethyl acetate (141-78-6): Reportable quantity = 5,000 (2270) lbs. (kg)
Xylene (mixed isomers) (1330-20-7): Reportable quantity = 100 (45.4) lbs. (kg)
Ethylbenzene (100-41-4): Reportable quantity = 1,000 (454) lbs. (kg)

SARA Section 311/312 Hazards:
Ethyl acetate (141-78-6): Fire hazard, Immediate (acute) health hazard
Propane (74-98-6): Fire hazard
Butane (106-97-8): Fire hazard
Isobutane (75-28-5): Fire hazard
reaction mass of ethylbenzene and xylene (-): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%) (-): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Xylene (mixed isomers) (1330-20-7): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics (-): Fire hazard, Immediate (acute) health hazard
Ethylbenzene (100-41-4): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
Solvent naphtha (petroleum), light arom.; Low boiling point naphtha - unspecified (-): Fire hazard, Immediate (acute) health hazard
Carbon Black (1333-86-4): Delayed (chronic) health hazard
Fatty acids,C18-unsatd. , trimers, compds. with oleylamine (147900-93-4): Immediate (acute) health hazard, Delayed (chronic) health hazard
Fatty acids, tall-oil, compds. with oleylamine (85711-55-3): Immediate (acute) health hazard, Delayed (chronic) health hazard

SARA Section 313 Toxic release inventory:
Xylene (mixed isomers) (1330-20-7): De minimis limit = 1.0 %, Reportable threshold = Standard
Ethylbenzene (100-41-4): De minimis limit = 0.1 %, Reportable threshold = Standard
Clean Air Act Section 112(r):
Propane (74-98-6): Threshold quantities = 10,000 lbs.
Butane (106-97-8): Threshold quantities = 10,000 lbs.
Isobutane (75-28-5): Threshold quantities = 10,000 lbs.
Clean Air Act Section 112(b):
Xylene (mixed isomers) (1330-20-7), Ethylbenzene (100-41-4)

State Regulations

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

WARNING: This product can expose you to chemicals including Ethylbenzene (cancer); Carbon black (airborne, unbound particles of respirable size) (cancer); Toluene (developmental), which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Directive 2004/42/EC on VOC in paints and varnishes: 73,0 % (592 g/l)

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

16. Other information

Changes

Revision date: 02/26/2026

Revision No: 1,6

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

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