

according to 29 CFR 1910.1200(g)

DEKAVATOR

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1. Identification

Product identifier

DEKAVATOR

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Activator

Uses advised against

No further relevant information available.

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

e-mail: msds@dinol.com

Contact person: Labor

Responsible Department: msds@dinol.com

Supplier

Company name: DINOL U.S. Inc.

Street: 8520 Cotter Street, Lewis Center

Place: USA-43035 Ohio Telephone: 740-548-1656

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 liquids: Flam. Liq. 3 Aspiration hazard: Asp. Tox. 1 Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Reproductive toxicity: Repr. 2

Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects) Specific target organ toxicity repeated or prolonged exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Chronic 2 Hazardous to the aquatic environment: Aquatic Acute 2

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:











Telefax: + 49 (0) 5281 9829860

Telefax: 740-548-1657

Hazard statements

Flammable liquid and vapor



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Causes skin irritation

Causes serious eye damage

Suspected of damaging fertility or the unborn child

May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Toxic to aquatic life

Toxic to aquatic life with long lasting effects

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.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Immediately call a poison center/doctor.

Do NOT induce vomiting.

If on skin: Wash with plenty of Water.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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 in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Immediately call a poison center/doctor.

If exposed or concerned: Get medical advice/attention.

Keep container tightly closed.

Store in a well-ventilated place. Keep cool.

Store locked up.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
90622-56-3	Alkanes, C7-10-iso	50 - < 100 %
5593-70-4	Butyltitanat(IV)	5 - < 10 %
108-88-3	toluene	3 - < 5 %
78-10-4	tetraethyl silicate; ethyl silicate	1 - < 3 %

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.



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If unconscious place in recovery position and seek medical advice.

After inhalation

Remove casualty to fresh air and keep warm and at rest.

After contact with skin

Change contaminated clothing.

After contact with skin, wash immediately with plenty of water and soap.

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. Seek medical advice immediately.

After indestion

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.

Most important symptoms and effects, both acute and delayed

No further relevant information available.

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,

Never use water.

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

No further relevant information available.

Special protective equipment and precautions for fire-fighters

Use appropriate respiratory protection.

Additional information

Use water spray/stream to protect personnel and to cool endangered containers. Supress gases/vapours/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 measures

Avoid contact with skin, eyes and clothes.

Use personal protection equipment.

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 (e.g. sand, diatomaceous earth, acid- or universal binding agents).



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Treat the recovered material as prescribed in the section on waste disposal.

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

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapour/spray.

Use only in well-ventilated areas.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharges.

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.

Further information on handling

Never use water.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

No special measures are necessary.

Hints on joint storage

Not required.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m³	f/cc	Category	Origin
78-10-4	Ethyl silicate	100	850		TWA (8 h)	PEL
		10	85		TWA (8 h)	REL
108-88-3	Toluene	200	-		TWA (8 h)	PEL
		C 300	-		Ceiling	PEL
108-88-3	Toluene	500	-		Peak	PEL
		100	375		TWA (8 h)	REL
		150	560		STEL (15 min)	REL

Exposure controls







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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 (DIN EN 166)

Hand protection

Recommended glove articles

FKM (fluoro rubber), Breakthrough time (maximum wearing time): 480 min.

NBR (Nitrile rubber), Breakthrough time (maximum wearing time): 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 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 :

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Liquid

Color: transparent yellow
Odor: characteristic
Odour threshold: not determined

Test method

Changes in the physical state

Melting point/freezing point:

Boiling point or initial boiling point and

not determined

boiling range:

Softening point: not determined
Flash point: 50 °C

Flammability

Solid/liquid: not applicable
Gas: not applicable

Explosive properties

not determined

Lower explosion limits:

Upper explosion limits:

not applicable

Auto-ignition temperature:

not applicable

not applicable

not applicable

not applicable

Oxidizing properties

not determined

pH-Value (at 20 °C):



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Viscosity / dynamic: 0,76 mPa·s

(at 20 °C)

Viscosity / kinematic: not determined
Water solubility: Immiscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined

Vapor pressure: not applicable

Density (at 20 °C): 0,756 g/cm³ DIN 51757

Relative vapour density: not determined Particle characteristics: not applicable

Other information

Information with regard to physical hazard classes

Sustaining combustion: No data available

Other safety characteristics

Solvent content: 79 - 81 % Solid content: 8,0 %

Further InformationNo 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

No further relevant information available.

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 tested

Dose Species Source

LC50, inhalation (vapor) (4 h) < 550 mg/l



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CAS No	Components							
	Exposure route	Dose		Species	Source	Method		
108-88-3	toluene							
	oral	LD50 mg/kg	>2000	Rat				
	dermal	LD50 mg/kg	12200	Rabbit				
	inhalation (4 h) vapour	LC50	28,1 mg/l	Rat				
78-10-4	tetraethyl silicate; ethyl silicate							
	inhalation vapour	ATE	11 mg/l					
	inhalation aerosol	ATE	1,5 mg/l					

Irritation and corrosivity

Causes skin irritation

Causes serious eye damage

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility or the unborn child (toluene)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness (Alkanes, C7-10-iso)

Specific target organ toxicity (STOT) - repeated exposure

May cause damage to organs through prolonged or repeated exposure (toluene)

Carcinogenicity (IARC): Toluene (CAS 108-88-3) is listed in group 3.

Aspiration hazard

May be fatal if swallowed and enters airways

Information on other hazards

Endocrine disrupting properties

No information available.

Other information

No information available.

Further information

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

12. Ecological information

CAS No	Components	Components								
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method			
108-88-3	toluene									
	Acute fish toxicity	LC50	12 mg/l	96 h	Carassius auratus	IUCLID				
	Acute algae toxicity	ErC50 mg/l	12,0		Pseudokirchneriella subcapitata					
	Acute crustacea toxicity	EC50 mg/l	11,5	1	Daphnia magna (Big water flea)					

Persistence and degradability

There are no data available on the mixture itself.

Bioaccumulative potential



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There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Components	Log Pow
108-88-3	toluene	2,73

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 mixture itself.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation. Do not mix with other wastes. Do not allow to enter into surface water or drains.

This material and its container must be disposed of as hazardous waste.

Contaminated packaging

Dispose according to legislation.

14. Transport information

US DOT 49 CFR 172.101

UN 1993

Proper shipping name: FLAMMABLE LIQUIDS, N.O.S. (toluene, Alkanes, C7-10-iso)

Transport hazard class(es):

Packing group:
Hazard label:

3



Marine transport (IMDG)

UN number or ID number: UN 1993

<u>UN proper shipping name:</u> FLAMMABLE LIQUID, N.O.S. (toluene,Alkanes, C7-10-iso)

Transport hazard class(es):3Packing group:IIIHazard label:3



Marine pollutant: yes

Special Provisions: 223, 274, 955

Limited quantity: 5 L
Excepted quantity: E1
EmS: F-E, S-E



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Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: UN 1993

<u>UN proper shipping name:</u> FLAMMABLE LIQUID, N.O.S. (toluene,Alkanes, C7-10-iso)

Transport hazard class(es):

Packing group:

Hazard label:

3



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3

10 L

Y344

Excepted quantity:

E1

IATA-packing instructions - Passenger:355IATA-max. quantity - Passenger:60 LIATA-packing instructions - Cargo:366IATA-max. quantity - Cargo:220 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Alkanes, C7-10-iso

Special precautions for user

Warning : Flammable liquids

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

not applicable

Other applicable information

Tansport classification ADR/IMGD is based on packaging >30ltr(IMDG), <450ltr(ADR).

For other packaging until different classification can apply.

15. Regulatory information

U.S. Regulations

National Inventory TSCA

Substance/product listed in the following inventories: TSCA

National regulatory information

SARA Section 304 CERCLA:

Toluene (108-88-3): Reportable quantity = 1,000 (454) lbs. (kg)

SARA Section 311/312 Hazards:

Alkanes, C7-10-iso (90622-56-3): Fire hazard, Immediate (acute) health hazard

Butyltitanat(IV) (5593-70-4): Fire hazard, Immediate (acute) health hazard

Toluene (108-88-3): Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

tetraethyl silicate; ethyl silicate (78-10-4): Fire hazard, Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Toluene (108-88-3): De minimis limit = 1.0 %, Reportable threshold = Standard

Clean Air Act Section 112(b):

Toluene (108-88-3)

State Regulations



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

WARNING: This product can expose you to chemicals including 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.

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/none

16. Other information

Hazardous Materials Information Label (HMIS)

Health: 3
Flammability: 2
Physical Hazard: 0

NFPA Hazard Ratings

Health: 3
Flammability: 2
Reactivity: 0

Unique Hazard: none/none
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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.)

