



The Chemical Company
19 Narragansett Avenue
Jamestown, RI 02835
Phone: (401) 423- 3100

Material Safety Data Sheet

1. Supplier and Substance Identification

Trade name VESTINOL 9
 di-isononyl phthalate

Use of the Substance /
Preparation Plasticizer

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2. Composition /Information on ingredients

Information on ingredients / Hazardous components

- di-isononyl phthalate
 CAS-No. 28553-12-0 EC-No. 249-079-5

See chapter 16 for text of risk phrases

Other information
in a non-stabilised form

3. Hazard Identification

No specific hazards are known.

4. First Aid Measures

General advice

Take care of your own personal safety.
Move out of dangerous area.
Take off all contaminated clothing immediately.
Keep warm and in a quiet place.
Do not leave the victim unattended.

Inhalation

After inhalation of vapors / spray mist
Bring affected person outside and ensure that he/she is comfortable.
If symptoms persist, call a physician.
In case of difficulties in breathing, supply oxygen.
Employ artificial respiration if breathing ceases.
Call a physician immediately.

Skin contact

Wash off with plenty of water and soap immediately.
If symptoms persist, call a physician.



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Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
In case of persistent discomfort: Consult an ophthalmologist.

Ingestion

If swallowed, rinse mouth with water (only if the person is conscious).
Immediately give large quantities of water to drink.
Seek medical advice immediately.

Notes to physician

Low-level toxicity
No specific antidote known.

5.Fire Fighting Measures

Suitable extinguishing media

Water spray, foam, CO2, dry powder.

Extinguishing media which must not be used for safety reasons

high volume water jet

Specific hazards during fire fighting

In case of fire cool endangered containers with water.

Special protective equipment for fire-fighters

In the case of respirable dust and/or fumes, use self-contained breathing apparatus.

6.Accidental Release Measures

Personal precautions

Wear personal protective equipment; see section 8.
Avoid contact with skin and eyes.
Ensure adequate ventilation.

Environmental precautions

Do not allow entrance in sewage water, drainage systems, stretches of water, soil.
Issue an immediate alarm report to the company environmental protection department if the product unintentionally leaves the production area.

Methods for cleaning up

Take up mechanically or with an absorbent material.
Fill into marked, sealable containers.
To be disposed of in compliance with existing regulations.
Suitable binder: universal absorbent, diatomaceous earth, oil absorbent

7.Handling and Storage

Handling

Safe handling advice
Wear personal protective equipment; see section 8.
If possible, use material transfer/filling, metering and blending plants that are closed.
Advice on protection against fire and explosion
Normal measures for preventive fire protection.
Temperature class
T 2

Storage

Requirements for storage areas and containers

Keep container tightly closed.

Keep in a dry place.

Suitable materials aluminium (min. 99.5 %), Material number:, 3.0255

Suitable materials aluminium magnesium alloys., (Quality Class F 18), Material number:,3.3535

Unsuitable materials PVC

Recommended sealing materials for example

Graphite flat gaskets with metal insert made of 1.4401.

PTFE flat gaskets with 25% by weight glass fibres, especially for manhole cover seals.

Advice on common storage

Observe prohibition against storing together!

German storage class

10 - Combustible liquids neither in Storage Class 3A nor 3B

8. Exposure Controls/Personal Protection

Components with workplace control parameters

CAS-No.	28553-12-0	EC-No. 249-079-5
Control parameters	5 mg/m ³ Time Weighted Average (TWA):(EH40 WEL)	

Engineering measures

If possible, use material transfer/filling, metering and blending plants that are closed.

Occupational exposure controls

Further information

ACGIH (American Conference of Governmental Industry Hygienists)

Personal protective equipment

Respiratory protection

In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter (filter type A) or wear a self contained respiratory apparatus

Hand protection

Chemical-resistant protective gloves (EN 374)

Glove material suitable protective gloves, e.g. nitrile-butadiene rubber (NBR) gloves

Material thickness 0.4 mm

Break through time \geq 480 min

Method Source: KCL GmbH

Selection of protective gloves to meet the requirements of specific workplaces. Suitability for specific workplaces should be clarified with protective glove manufacturers.

The information is based on our own tests, references from the literature and information from glove manufacturers, or derived by analogy with similar materials. Remember that the useful time per day of a chemical protection glove may be much shorter than the permeation time determined according to EN 374 due to the many different influential factors involved (e.g. temperature).

Eye protection

safety glasses

Skin and body protection

Select materials and equipment for physical protection depending on the concentration and volume of hazardous substances and the workplace involved.

Hygiene measures

Do not inhale vapours / aerosols.

Avoid contact with skin and eyes.

Remove contaminated or saturated clothing.

Smoking, eating and drinking should be prohibited in the application area.

Protective measures

Wear suitable protective clothing.

Environmental exposure controls

see section 6.

9. Physical and Chemical Properties

Appearance

Form liquid
Odour odourless

Safety data

pH (20 °C) neutral
aqueous extract

Melting point/range ca. -54 °C
Pour point

Boiling point/range 270.0 - 280.0 °C (5 hPa)

Flash point ca. 200 °C
Method: DIN EN 22 719

Ignition temperature ca. 400 °C
Method: DIN 51 794

Explosiveness no explosion limits under standard conditions

Lower explosion limit 0.4 %(V)

Upper explosion limit 2.9 %(V)

Vapour pressure < 0.01 hPa (20 °C)

Density 0.972 - 0.977 g/cm³ (20 °C)

Water solubility < 0.100 g/l (20 °C)

Partition coefficient (n-octanol/water) log Pow: 9.98
(calculated) related to substance: di-isononyl phthalate

Viscosity, dynamic 72.00 - 82.00 mPa.s (20 °C)
 Method: DIN 53 015

Molecular Weight 419 g/Mol

10. Stability and Reactivity

Conditions to avoid Keep away from heat and sources of ignition.
Materials to avoid strong oxidizing agents, Hydrogen peroxide
Hazardous decomposition products not known
Thermal decomposition > 280 °C
Hazardous reactions None known.

11. Toxicological Information

Acute oral toxicity LD50 rat(male/female): > 10000 mg/kg
 Method: OECD Guide-line 401
 Own study
 No labelling required
 Rabbit / 4 h
Skin irritation not irritating
 Method: OECD Test Guideline 404
 Own study
 Rabbit
Eye irritation not irritating
 Method: OECD Test Guideline 405
 Own study
Gentoxicity in vitro no evidence of mutagenic effects, (literature value)
Toxicity to reproduction no evidence of reproductiontoxic properties

12. Ecological Information

Elimination information (persistence and degradability)

Biodegradability aerobic
 inoculum: Activated sludge
 Exposure time: 28 d
 Result: 81 % readily biodegradable
 Method: (CO2; modif. Sturm test - 92/69/EEC part C.4-C) Own study

Behaviour in environmental compartments

Ecotoxicity effects

Toxicity to fish LC50 semi-static test Brachydanio rerio: > 100.00 mg/l / 96 h
 Method: EC 92/69
 Fish, acute toxicity test tested in the presence of emulsifiers In the range of water solubility
 not toxic under test conditions. Own test result.
 LC0 semi-static test Brachydanio rerio: >= 100 mg/l / 96 h
 Method: Directive 92/69/EEC C.1
 Fish, acute toxicity test tested in the presence of emulsifiers In the range of water solubility

not toxic under test conditions. Own test result.

NOEC semi-static test *Daphnia magna*: ≥ 100 mg/l / 21 d
Method: OECD 202 part 2 tested in the presence of emulsifiers In the range of water solubility not toxic under test conditions. Own test result.

Toxicity to daphnia

EC50 static test *Daphnia magna*: ≥ 74 mg/l 24 h
Method: Directive 92/69/EEC C.2
Own test result.

EC50 static test *Daphnia magna*: ≥ 74 mg/l/48 h
Method: Directive 92/69/EEC C.2 Own test result.

EC50 *scenedesmus subspicatus*: >100.00 mg/l/72 h
Method: EC 92/69

cell multiplication inhibition test tested in the presence of emulsifiers Own test result.

Toxicity to algae

NOEC *scenedesmus subspicatus*: ≥ 100.00 mg/l /72 h
Method: EC 92/69

cell multiplication inhibition test tested in the presence of emulsifiers Own test result.

EC50 *Lepidium sativum*: > 1000 mg/l

Test period: 19 d

Method: OECD 208

Own test result.

Toxicity in terrestrial plants

EC50 *Triticum aestivum*: > 1000 mg/l

Test period: 19 d

Method: OECD 208

Own test result.

EC50 *Lactuca sativa* (lettuce): > 1000 mg/l

Test period: 21 d

Method: OECD 208

Own test result.

13. Disposal Consideration

Product

With respect to local regulations, e.g. dispose of to waste incineration plant No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer. The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm / producing firm / official authority.

14. Transport Information

Transport/further information

Not classified as dangerous in the meaning of transport regulations.

IBC Code Product Name: DIALKYL (C7-C13) Phthalates; MARPOL Category: X; Ship Type: 2

15. Regulatory Information

Labelling according to EC Directives

Statutory basis/list Not subject to labelling provisions by Directive 67/548/EEC.



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National legislation

16. Other Information

Risk phrase (R phrase) texts