

Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 11.05.2012

Version: 2.0

Product: **RIDAK LIQUID CONC**

(ID no. 30547386/SDS_GEN_EU/EN)

Date of print 17.08.2012

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

RIDAK LIQUID CONC

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

Relevant identified uses: technical preconcentrate

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Crop Protection

Telephone: +49 621 60-27777

E-mail address: Produktinformation-Pflanzenschutz@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



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Signal Word:

Warning

Hazard Statement:

H332	Harmful if inhaled.
H312	Harmful in contact with skin.
H302	Harmful if swallowed.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P261c	Avoid breathing mist.
P273	Avoid release to the environment.
P280c	Wear protective gloves.
P264	Wash with plenty of water and soap thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.

Precautionary Statements (Response):

P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P330	Rinse mouth.

Precautionary Statements (Storage):

P405	Store locked up.
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Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: Difenacoum

According to Directive 67/548/EEC or 1999/45/EC

EEC Directives

Hazard symbol(s)

Xn Harmful.



N Dangerous for the environment.



R-phrases(s)

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R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)

S36/37

Wear suitable protective clothing and gloves.

S60

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

S61

Avoid release to the environment. Refer to special instructions/safety data sheets.

Hazard determining component(s) for labelling: Difenacoum

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 (oral)

Acute Tox. 4 (Inhalation - mist)

Acute Tox. 4 (dermal)

Aquatic Chronic 2

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

Harmful by inhalation, in contact with skin and if swallowed.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

For the classifications not written out in full in this section the full text can be found in section 16.

Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/Information on Ingredients

Mixtures

Chemical nature

technical preconcentrate

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

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DifenacoumContent (W/W): 0.25 %
CAS Number: 56073-07-5Acute Tox. 1 (Inhalation - dust)
Acute Tox. 1 (oral)
Acute Tox. 1 (dermal)
STOT RE 1
Aquatic Acute 1
Aquatic Chronic 1
H300, H310, H330, H372, H400, H410**| 2,2',2''-Nitrilotriethanol**Content (W/W): < 7.5 %
CAS Number: 102-71-6
EC-Number: 203-049-8
REACH registration number:
01-2119486482-31Hazardous ingredients

according to Directive 1999/45/EC

DifenacoumContent (W/W): 0.25 %
CAS Number: 56073-07-5
Hazard symbol(s): T+, N
R-phrase(s): 26/27/28, 48/23/24/25, 50/53**| 2,2',2''-Nitrilotriethanol**Content (W/W): < 7.5 %
CAS Number: 102-71-6
EC-Number: 203-049-8
REACH registration number: 01-2119486482-31

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

4. First-Aid Measures

Description of first aid measures**|** Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

| Wash thoroughly with soap and water.

On contact with eyes:

| Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

| Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: coagulation disorders

Increased tendency to bleed.

In severe cases, massive bleeding from internal organs may result in circulatory shock, which could prove fatal.

The onset of symptoms is delayed for up to 4 days after uptake.

Hazards: The substance / product is an anticoagulant rodenticide with a coumarin-type mode of action.

Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

Antidote: Vitamin K1 preparation as antidote.

5. Fire-Fighting Measures**Extinguishing media**

Suitable extinguishing media:

carbon dioxide, dry powder, water spray, foam

Unsuitable extinguishing media for safety reasons:

water jet

Special hazards arising from the substance or mixture

carbon monoxide, Carbon dioxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures**Personal precautions, protective equipment and emergency procedures**

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Cleaning operations should be carried out only while wearing breathing apparatus.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Conditions for safe storage, including any incompatibilities Segregate from foods and animal feeds.

Odour-sensitive: Segregate from products releasing odours.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

| 102-71-6: 2,2',2''-Nitrilotriethanol

Exposure controls

Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic and alkaline compounds (e.g. EN 14387 Type ABEK).

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form:	liquid, viscous
Colour:	dark blue
Odour:	odourless
Odour threshold:	not determined
pH value:	neutral to slightly alkaline, The statements are based on the properties of the individual components.
Melting point:	The product has not been tested.
Boiling point:	100 °C Information applies to the solvent.
Flash point:	Substance/product is non-flammable.
Evaporation rate:	not applicable
Flammability:	not determined
Lower explosion limit:	not determined
Upper explosion limit:	not determined
Ignition temperature:	approx. 400 °C Information applies to the solvent.
Vapour pressure:	approx. 0.01 mmHg (20 °C) Information applies to the solvent.
Density:	approx. 1 - 1.2 g/cm ³ (approx. 20 °C)
Relative vapour density (air):	not determined
Solubility in water:	miscible
<i>Information on: Difenacoum</i>	
<i>Partitioning coefficient n-octanol/water (log Kow): 7.6</i> (20 °C)	

Thermal decomposition:	not determined

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Viscosity, dynamic:

not determined

Explosion hazard: not explosive

Fire promoting properties: not fire-propagating

Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

The product is chemically stable.

Conditions to avoid

See MSDS section 7 - Handling and storage.

Incompatible materials

Substances to avoid:

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of moderate toxicity after short-term inhalation. Of moderate toxicity after short-term skin contact. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Difenacoum**Experimental/calculated data:***|** LD50 rat (oral): 1.8 mg/kg (Guideline 92/69/EEC, B.1)*Information on: Difenacoum*

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*Experimental/calculated data:**LC50 rat (by inhalation): 0.00346 - 0.005848 mg/l 4 h (OECD Guideline 403)**An aerosol was tested.*
-----*Information on: Difenacoum**Experimental/calculated data:**LD50 rat (dermal): 63 mg/kg (Directive 92/69/EEC, B.3)**The European Union (EU) has classified this substance as 'very toxic'.*

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Difenacoum**Experimental/calculated data:***|** *Skin corrosion/irritation rabbit: non-irritant (Guideline 92/69/EEC, B.4)*
-----*Information on: Difenacoum**Experimental/calculated data:***|** *Serious eye damage/irritation rabbit: non-irritant (Guideline 92/69/EEC, B.5)*

Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Difenacoum**Experimental/calculated data:***|** *Guinea pig maximization test guinea pig: Non-sensitizing. (Guideline 92/69/EEC, B.6)*

Germ cell mutagenicity

Assessment of mutagenicity:

Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

| *Information on: 2,2',2''-Nitrilotriethanol**Assessment of carcinogenicity:*

Under certain conditions the substance can form nitrosamines. Nitrosamines are carcinogenic in animal studies. The substance showed no carcinogenic activity in animals after chronic administration to the skin.

Reproductive toxicity

Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 2,2',2''-Nitrilotriethanol

Assessment of reproduction toxicity:

The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition. The potential to impair fertility cannot be excluded when given at maternally toxic doses. Because the relevance of the results to human health is unclear, further tests will be initiated.

Developmental toxicity

Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 2,2',2''-Nitrilotriethanol

Assessment of teratogenicity:

The results of animal studies gave indication of a developmental toxic/teratogenic effects with high doses. The results were determined in a Screening test (OECD 421/422). Because the relevance of the results to human health is unclear, further tests will be initiated. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Difenacoum

Assessment of repeated dose toxicity:

Repeated exposure to small quantities may affect certain organs. Damages the coagulation system.

Other relevant toxicity information

Misuse can be harmful to health.

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Difenacoum

Toxicity to fish:

LC50 (96 h) 0.064 mg/l, Oncorhynchus mykiss (Directive 92/69/EEC, C.1)

Information on: Difenacoum

Aquatic invertebrates:

EC50 (48 h) 0.52 mg/l, Daphnia magna (Directive 92/69/EEC, C.2)

Information on: Difenacoum

Aquatic plants:

No observed effect concentration (72 h) 0.25 mg/l (growth rate), Pseudokirchneriella subcapitata (Guideline 92/69/EEC, C.3)

Assessment of terrestrial toxicity:

Hazardous to birds and mammals.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Difenacoum

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria).

Information on: polyethylene glycol

Assessment biodegradation and elimination (H₂O):

| *Not readily biodegradable (by OECD criteria).* -----

Bioaccumulative potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Difenacoum

Bioaccumulation potential:

| *Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.*

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Difenacoum

Assessment transport between environmental compartments:

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Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Results of PBT and vPvB assessment

The product contains a potential PBT substance.

The product contains a potential vPvB substance.

Information on: Difenacoum

potential PBT substance
potential vPvB substance

Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Additional information

Other ecotoxicological advice:

Must not be discharged into the environment.

13. Disposal Considerations

Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

Land transport

ADR

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DIFENACOUM)

RID

Hazard class: 9

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Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DIFENACOUM)

Inland waterway transport

ADN

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DIFENACOUM)

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DIFENACOUM)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(contains DIFENACOUM)

15. Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture**

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

16. Other Information

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Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

T+	Very toxic.
N	Dangerous for the environment.
26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
48/23/24/25	Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment - chronic
STOT RE	Specific target organ toxicity — repeated exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.