

according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 1 of 12

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6
Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

<u>number:</u> Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H290 May be corrosive to metals.

Precautionary statements

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 2 of 12

P406

Store in a corrosion-resistant container with a resistant inner liner.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name	Chemical name		
	EC No	Index No	ndex No REACH No	
	Classification (Regulation (E0	C) No 1272/2008)	·	
64-17-5	ethanol			1 - < 5 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
7664-93-9	sulphuric acid			1 - < 5 %
	231-639-5	016-020-00-8	01-2119458838-20	
	Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1; H290 H314 H318			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

opecine cone: Elimis, in-lactors and ATE					
CAS No	EC No	EC No Chemical name			
	Specific Conc.	Limits, M-factors and ATE			
64-17-5	200-578-6	ethanol	1 - < 5 %		
	inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg				
7664-93-9	231-639-5	sulphuric acid	1 - < 5 %		
	oral: LD50 = 2 Eye Irrit. 2; H31	140 mg/kg Skin Corr. 1A; H314: >= 15 - 100 Skin Irrit. 2; H315: >= 5 - < 15			

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 3 of 12

Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Irritant

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Sulphur oxides

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Corrosive to metals.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

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

For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 4 of 12

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

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

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Use personal protection equipment.

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

Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

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. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Corrosive to metals.

Unsuitable container/equipment material: Metal

The product develops hydrogen in an aqueous solution in contact with metals.

Further information on storage conditions

Keep container tightly closed.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
64-17-5	Ethyl alcohol	1000			STEL (15 min)	
7664-93-9	Sulphuric acid	-	0.05		TWA (8 h)	



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 5 of 12

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
64-17-5	ethanol			
Worker DNEL,	long-term	inhalation	systemic	950 mg/m³
Worker DNEL,	long-term	dermal	systemic	343 mg/kg bw/day
Consumer DNI	EL, long-term	inhalation	systemic	114 mg/m³
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	87 mg/kg bw/day
7664-93-9	sulphuric acid			
Worker DNEL,	long-term	inhalation	local	0,05 mg/m³
Worker DNEL,	acute	inhalation	local	0,1 mg/m³

PNEC values

CAS No	Substance			
Environment	Environmental compartment			
64-17-5	ethanol	·		
Freshwater	•	0,96 mg/l		
Freshwater (intermittent releases)	2,75 mg/l		
Marine wate	r	0,79 mg/l		
Freshwater	sediment	3,6 mg/kg		
Marine sediment		2,9 mg/kg		
Secondary poisoning		380 mg/kg		
Micro-organisms in sewage treatment plants (STP)		580 mg/l		
Soil		0,63 mg/kg		
7664-93-9	sulphuric acid			
Freshwater	•	0,003 mg/l		
Marine water		0 mg/l		
Freshwater	0,002 mg/kg			
Marine sedir	Marine sediment			
Marine sediment 0,002 mg/kg Micro-organisms in sewage treatment plants (STP) 8,8 mg/l				

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 6 of 12

supplier of these gloves.

Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: green
Odour: odourless

Test method

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

Flammability: No data available Lower explosion limits: No data available No data available Upper explosion limits: Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: No data available pH-Value: No data available Viscosity / kinematic: No data available Water solubility: completely miscible

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapour pressure:

Vapour pressure:

No data available

Vapour pressure:

No data available

Density (at 20 °C):

0,9992 g/cm³

Bulk density:

No data available

Relative vapour density:

No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

No data available
Sustaining combustion:

UN Test L.2

Print date: 06.05.2024

Self-ignition temperature

Solid: No data available
Gas: No data available

Oxidizing properties Oxidizing

Other safety characteristics



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 7 of 12

Evaporation rate:

Solvent separation test:

No data available

Solvent content:

0

Solid content:

0

Sublimation point:

No data available

Sublimation point:No data availableSoftening point:No data availablePour point:No data available

No data available:

Viscosity / dynamic: No data available Flow time: No data available

Further Information
Corrosive to metals.

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Alkali (lye)

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

10.6. Hazardous decomposition products

In case of fire may be liberated: SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 8 of 12

CAS No	Chemical name						
	Exposure route	Dose		Species	Source	Method	
64-17-5	ethanol						
	oral	LD50 mg/kg	10470	Rat	Study report (1976)	OECD Guideline 401	
	inhalation (4 h) vapour	LC50 mg/l	124,7	Rat	Study report (1980)	OECD Guideline 403	
7664-93-9	sulphuric acid						
	oral	LD50 mg/kg	2140	Rat	Am Ind Hyg Assoc J. 1969 Sep-Oct; 30(5):	The study was performed as part of a ser	

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

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

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Specific effects in experiment on an animal

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

Additional information on tests

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

Practical experience

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

11.2. Information on other hazards

Other information

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

Further information

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

SECTION 12: Ecological information

12.1. Toxicity

No data available



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 9 of 12

CAS No	Chemical name	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method		
64-17-5	ethanol								
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination	other: EPA-660/3-75-00 9, 1975		
	Acute algae toxicity	ErC50 22000 mg/l	ca.	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201		
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	other: DIN 38412 Teil 11		
	Algae toxicity	NOEC mg/l	5400	5 d	Skeletonema costatum	Environ Toxicol Chem 8(5):451-455. (1989	Study to determine the sensitivity of a		
	Crustacea toxicity	NOEC	2 mg/l	10 d	Ceriodaphnia dubia	Arch Environ Contam Toxicol 20(2):211-21	Follows the basic methodology for the th		
7664-93-9	sulphuric acid								
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (2009)	OECD Guideline 201		
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (2009)	OECD Guideline 202		
	Fish toxicity	NOEC mg/l	0,025	65 d	Jordanella floridae	Water Research Vol. 11, 612 - 626, 1977	Groups of sexually mature flagfish		

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol	-0,77

BCF

CAS No	Chemical name	BCF	Species	Source
64-17-5	ethanol	1	Cyprinus carpio	Comparative Biochemi

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. There are no data available on the mixture itself.

12.6. 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.

12.7. Other adverse effects

No data available

Further information

Do not allow to enter into surface water or drains.



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 10 of 12

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste. Send to a physico-chemical treatment facility under observation of official regulations.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

SECTION 14: Transport information

Land transport	(ADR/RID)
----------------	-----------

14.1. UN number or ID number: UN 1760

14.2. UN proper shipping name: CORROSIVE LIQUID, N.O.S. (sulphuric acid)

14.3. Transport hazard class(es): 8 Ш 14.4. Packing group: Hazard label: R Classification code: C9 Special Provisions: 274 Limited quantity: 5 L Excepted quantity: E1 Transport category: 3 Hazard No: 80 Tunnel restriction code: F

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1760

14.2. UN proper shipping name: CORROSIVE LIQUID, N.O.S. (sulphuric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Classification code:C9Special Provisions:274Limited quantity:5 LExcepted quantity:E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1760

<u>14.2. UN proper shipping name:</u> CORROSIVE LIQUID, N.O.S. (sulphuric acid)

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Special Provisions:223, 274Limited quantity:5 LExcepted quantity:E1EmS:F-A. S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1760

14.2. UN proper shipping name: CORROSIVE LIQUID, N.O.S. (sulphuric acid)



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 11 of 12

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Special Provisions:A3 A803Limited quantity Passenger:1 LPassenger LQ:Y841Excepted quantity:E1

IATA-packing instructions - Passenger:852IATA-max. quantity - Passenger:5 LIATA-packing instructions - Cargo:856IATA-max. quantity - Cargo:60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 40, Entry 75

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Abbreviations and acronyms

Met. Corr: Substance or mixture corrosive to metals

Flam. Liq: Flammable liquid Skin Corr: Skin corrosion Eye Dam: Eye damage Eye Irrit: Eye irritation

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

Further Information

Provide appropriate information, instructions and training to users

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



according to Regulation (EC) No 1907/2006

Mischindikator-Lösung für die Eptontitration 80 mg Dimidiumbromid + 40 mg Disulfinblau VN 150 / I

Revision date: 06.05.2024 Product code: 31933 Page 12 of 12

processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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