BHQ-3 Succinimidyl Ester

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Issue date: 21/12/2021 Version: 1.0

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	BHQ-3 Succinimidyl Ester
Product code	:	BHQ-3000S
Product group	:	Trade product

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

1.2.1. Relevant identified uses

Main use category : Laboratory chemical

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Biosearch Technologies, Inc
2199 South McDowell Boulevard
Petaluma, CA 94954-6904
USA

Only Representative Address:
Unit 1-2 Trident Industrial Estate, Pindar Road
Hoddesdon, EN110WZ
England

1.4. Emergency telephone number

Emergency number : +44 1992 470757 (9am – 5pm GMT)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4	H302
Acute toxicity (inhal.), Category 3	H331
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05 GHS06 GHS08 GHS09

Signal word (CLP) : Danger

Contains	:	Sodium nitrite; N-methylaniline; 3-Amino-7-diethylamino-5-phenylphenazinium chloride; Phosphate(1-), hexafluoro-, potassium; N-hydroxysuccinimide; Ethyl 4-bromobutyrate
Hazard statements (CLP)	:	H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H331 - Toxic if inhaled. H373 - May cause damage to organs through prolonged or repeated exposure. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	:	P260 - Do not breathe dust/fume. P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER/doctor. P305+P351+P338+P310 - 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. P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
3-Amino-7-diethylamino-5-phenylphenazinium chloride	CAS-No.: 4569-86-2 EC-No.: 610-268-6	30 – 60	Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 1, H410
Phosphate(1-), hexafluoro-, potassium	CAS-No.: 17084-13-8 EC-No.: 241-143-0	10 – 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 Eye Dam. 1B, H318
Ethyl 4-bromobutyrate	CAS-No.: 2969-81-5 EC-No.: 221-005-6	7 – 15	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
N-methylaniline	CAS-No.: 100-61-8 EC-No.: 202-870-9 EC Index-No.: 612-015-00-5	7 – 15	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
N-hydroxysuccinimide	CAS-No.: 6066-82-6 EC-No.: 228-001-3	7 – 15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Sodium nitrite	CAS-No.: 7632-00-0 EC-No.: 231-555-9 EC Index-No.: 007-010-00-4	1 – 5	Ox. Sol. 3, H272 Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400

SECTION 4: First Aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If breathing is difficult, supply oxygen. If breathing has stopped, give artificial respiration.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention immediately.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.

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

Symptoms/effects : Toxic if inhaled. Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : Toxic if inhaled.

Symptoms/effects after skin contact : Causes severe skin burns. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes severe eye damage.

Symptoms/effects after ingestion : Harmful if swallowed.

Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Dry powder. Water spray.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

Explosion hazard : Product is not explosive.

Reactivity in case of fire : None known.

Hazardous decomposition products in case of fire : Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon oxides and other organic compounds will be evolved when this material undergoes thermal degradation.

5.3. Advice for firefighters

Precautionary measures fire : Eliminate all ignition sources if safe to do so.

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Do not dispose of fire-fighting water in the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Avoid dust formation. Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Clean up by scraping or collecting as material will be solid at room temperature.

Methods for cleaning up : Avoid dust formation. Scoop solid spill into closing containers or bags. This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Keep container closed when not in use. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Keep container closed when not in use. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store in a dry, cool and well-ventilated place.

Incompatible materials : Moisture. Air.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

N-methylaniline (100-61-8)	
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	2.2 mg/m³ (reaction with nitrosating agents can lead to formation of carcinogens N-Nitrosomethylaniline)
MAK (OEL TWA) [ppm]	0.5 ppm (reaction with nitrosating agents can lead to formation of carcinogens N-Nitrosomethylaniline)
MAK (OEL STEL)	8.8 mg/m³
MAK (OEL STEL) [ppm]	2 ppm
Chemical category	Skin notation
Belgium - Occupational Exposure Limits	
OEL TWA	2.2 mg/m³

N-methylaniline (100-61-8)	
OEL TWA [ppm]	0.5 ppm
Chemical category	Skin
Croatia - Occupational Exposure Limits	
GVI (OEL TWA) [1]	2.2 mg/m³
GVI (OEL TWA) [2]	0.5 ppm
Czech Republic - Occupational Exposure Limits	
PEL (OEL TWA)	2 mg/m³
Chemical category	Potential for cutaneous absorption
Denmark - Occupational Exposure Limits	
OEL TWA [1]	2.25 mg/m³
OEL TWA [2]	0.5 ppm
Chemical category	Potential for cutaneous absorption
France - Occupational Exposure Limits	
VME (OEL TWA)	2 mg/m³
VME (OEL TWA) [ppm]	0.5 ppm
Chemical category	Risk of cutaneous absorption
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	2.2 mg/m³ (the reaction with nitrosating agents can lead to the formation of the corresponding carcinogenic N-Nitrosoamines)
AGW (OEL TWA) [2]	0.5 ppm (the reaction with nitrosating agents can lead to the formation of the corresponding carcinogenic N-Nitrosoamines)
Chemical category	Skin notation
Greece - Occupational Exposure Limits	
OEL TWA	9 mg/m³
OEL TWA [ppm]	2 ppm
Chemical category	skin - potential for cutaneous absorption
Ireland - Occupational Exposure Limits	
OEL TWA [1]	2 mg/m³
OEL TWA [2]	0.5 ppm
OEL STEL	6 mg/m³ (calculated)
OEL STEL [ppm]	1.5 ppm (calculated)
Chemical category	Potential for cutaneous absorption
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	2 mg/m³
NDSCh (OEL STEL)	4 mg/m³
Portugal - Occupational Exposure Limits	
OEL TWA [ppm]	0.5 ppm
Chemical category	skin - potential for cutaneous exposure
Romania - Occupational Exposure Limits	
OEL TWA	7 mg/m³

N-methylaniline (100-61-8)	
OEL TWA [ppm]	16 ppm
OEL STEL	10 mg/m³
OEL STEL [ppm]	23 ppm
Chemical category	Skin notation
Slovakia - Occupational Exposure Limits	
NPHV (OEL TWA) [1]	2.2 mg/m³
NPHV (OEL TWA) [2]	0.5 ppm
NPHV (OEL C)	4.4 mg/m³
Chemical category	Potential for cutaneous absorption
Slovenia - Occupational Exposure Limits	
OEL TWA	2.2 mg/m³
OEL TWA [ppm]	0.5 ppm
OEL STEL	4.4 mg/m³
OEL STEL [ppm]	1 ppm
Chemical category	Potential for cutaneous absorption
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	2.2 mg/m³ (reaction with nitrosating agents can lead to formation of carcinogenic N-Nitrosamines)
VLA-ED (OEL TWA) [2]	0.5 ppm (reaction with nitrosating agents can lead to formation of carcinogenic N-Nitrosamines)
Chemical category	skin - potential for cutaneous absorption
Spain - Biological limit values	
BLV	Parameter: Methemoglobin - Medium: blood - Sampling time: end of shift (BLVm)
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	2.2 mg/m³
WEL TWA (OEL TWA) [2]	0.5 ppm
WEL STEL (OEL STEL)	6.6 mg/m³ (calculated)
WEL STEL (OEL STEL) [ppm]	1.5 ppm (calculated)
WEL chemical category	Potential for cutaneous absorption
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA) [1]	2 mg/m³
Grenseverdi (OEL TWA) [2]	0.5 ppm
Korttidsverdi (OEL STEL)	4 mg/m³ (value calculated)
Korttidsverdi (OEL STEL) [ppm]	1.5 ppm (value calculated)
Chemical category	Skin notation
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	2.2 mg/m³ (the reaction with Nitrosating agent can lead to carcinogenic N-Nitrosomethylanilines)
MAK (OEL TWA) [2]	0.5 ppm (the reaction with Nitrosating agent can lead to carcinogenic N-Nitrosomethylanilines)

N-methylaniline (100-61-8)	
KZGW (OEL STEL)	4.4 mg/m³ (the reaction with Nitrosating agent can lead to carcinogenic N-Nitrosomethylanilines)
KZGW (OEL STEL) [ppm]	1 ppm (the reaction with Nitrosating agent can lead to carcinogenic N-Nitrosomethylanilines)
Chemical category	Skin notation, Category C2 carcinogen
USA - ACGIH - Occupational Exposure Limits	
Local name	N-Methylaniline
ACGIH OEL TWA [ppm]	0.5 ppm
Remark (ACGIH)	TLV® Basis: MeHb-emia; CNS impair. Notations: Skin; BEIM
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
BEI	1.5 % of hemoglobin Parameter: Methemoglobin - Medium: blood - Sampling time: during or end of shift (background, nonspecific, semi-quantitative)

Sodium nitrite (7632-00-0)	
Finland - Occupational Exposure Limits	
Huomautus (FI)	Occupational Exposure Limits (OELs) not established (Työperäisen altistumisen raja-arvoja (OEL) ei määritetty)
Lithuania - Occupational Exposure Limits	
NRV (OEL C)	0.1 mg/m³

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Ensure adequate ventilation, especially in confined areas.

8.2.2. Personal protection equipment

Personal protective equipment:
Gloves. Protective goggles. Wear chemically impervious apron over labcoat and full coverage clothing.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles [EN 166]

8.2.2.2. Skin protection

Skin and body protection:
Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure. [EN 14605:2005 and EN 13034:2005]

Hand protection:
Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Be aware that the chemical may penetrate the gloves. Frequent changes are advisable. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

8.2.2.3. Respiratory protection

Respiratory protection:
Where vapour, mist, or dust exceed PELs or other applicable OELs, use the European Standard EN 529:2005 approved dust/particulate respiratory protective equipment.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Powder.
Colour	:	Purple.
Odour	:	No data available.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Air and moisture sensitive.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

None under normal use.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Toxic if inhaled.

N-methylaniline (100-61-8)	
LD50 oral rat	280 mg/kg
LD50 dermal rabbit	3000 mg/kg

Sodium nitrite (7632-00-0)	
LD50 oral rat	85 mg/kg
LC50 Inhalation - Rat	5.5 mg/l/4h

Phosphate(1-), hexafluoro-, potassium (17084-13-8)	
LD50 oral rat	≈ 1400 mg/kg bodyweight Animal: rat, Animal sex: male

Skin corrosion/irritation : Causes severe skin burns.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified

11.2. Information on other hazards

11.2.1 Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No data available.

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Ethyl 4-bromobutyrate (2969-81-5)	
LC50 - Fish [1]	20.654 mg/l Source: Ecological Structure Activity Relationships
EC50 96h - Algae [1]	17.298 mg/l Source: Ecological Structure Activity Relationships

N-methylaniline (100-61-8)	
LC50 - Fish [1]	100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 72h - Algae [1]	3.8 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	0.29 mg/l Test organisms (species): Daphnia magna Duration: '504 h'

Sodium nitrite (7632-00-0)	
LC50 - Fish [1]	0.19 mg/l 96 Hr Oncorhynchus mykiss [flow-through] (juvenile)
LC50 - Fish [2]	0.092 – 0.13 mg/l 96 Hr Oncorhynchus mykiss [flow-through]
EC50 - Crustacea [1]	18.11 mg/l
EC50 72h - Algae [1]	159 mg/l

N-hydroxysuccinimide (6066-82-6)	
LC50 - Fish [1]	69925.4 mg/l Source: Ecological Structure Activity Relationships

Phosphate(1-), hexafluoro-, potassium (17084-13-8)	
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

UN-No. (ADR) : UN 3077
UN-No. (IMDG) : UN 3077
UN-No. (IATA) : UN 3077
UN-No. (ADN) : UN 3077
UN-No. (RID) : UN 3077

14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Proper Shipping Name (IATA) : Environmentally hazardous substance, solid, n.o.s.
Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Proper Shipping Name (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Transport document description (ADR) : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3-Amino-7-diethylamino-5-phenylphenazinium chloride ; N-methylaniline), 9, III, (-)
Transport document description (IMDG) : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3-Amino-7-diethylamino-5-phenylphenazinium chloride ; N-methylaniline), 9, III, MARINE POLLUTANT
Transport document description (IATA) : UN 3077 Environmentally hazardous substance, solid, n.o.s. (3-Amino-7-diethylamino-5-phenylphenazinium chloride ; N-methylaniline), 9, III
Transport document description (ADN) : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3-Amino-7-diethylamino-5-phenylphenazinium chloride ; N-methylaniline), 9, III
Transport document description (RID) : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (3-Amino-7-diethylamino-5-phenylphenazinium chloride ; N-methylaniline), 9, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 9
Danger labels (ADR) : 9

:

IMDG

Transport hazard class(es) (IMDG) : 9
Danger labels (IMDG) : 9

:

IATA

Transport hazard class(es) (IATA) : 9

Danger labels (IATA) : 9

:

ADN

Transport hazard class(es) (ADN) : 9

Danger labels (ADN) : 9

:

RID

Transport hazard class(es) (RID) : 9

Danger labels (RID) : 9

:

14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	M7
Special provisions (ADR)	:	274, 335, 375, 601
Limited quantities (ADR)	:	5kg
Excepted quantities (ADR)	:	E1
Packing instructions (ADR)	:	P002, IBC08, LP02, R001
Special packing provisions (ADR)	:	PP12, B3
Mixed packing provisions (ADR)	:	MP10
Portable tank and bulk container instructions (ADR)	:	T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (ADR)	:	TP33
Tank code (ADR)	:	SGAV, LGBV
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	3
Special provisions for carriage - Packages (ADR)	:	V13
Special provisions for carriage - Bulk (ADR)	:	VC1, VC2
Special provisions for carriage - Loading, unloading and handling (ADR)	:	CV13
Hazard identification number (Kemler No.)	:	90
Orange plates	:	
Tunnel restriction code (ADR)	:	-
EAC code	:	2Z

Transport by sea (IMDG)

Special provisions (IMDG)	:	274, 335, 966, 967, 969
Limited quantities (IMDG)	:	5 kg
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	LP02, P002
Special packing provisions (IMDG)	:	PP12
IBC packing instructions (IMDG)	:	IBC08
IBC special provisions (IMDG)	:	B3
Tank instructions (IMDG)	:	BK1, BK2, BK3, T1
Tank special provisions (IMDG)	:	TP33
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-F
Stowage category (IMDG)	:	A
Stowage and handling (IMDG)	:	SW23

Air transport (IATA)

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y956
PCA limited quantity max net quantity (IATA)	:	30kgG
PCA packing instructions (IATA)	:	956
PCA max net quantity (IATA)	:	400kg
CAO packing instructions (IATA)	:	956
CAO max net quantity (IATA)	:	400kg
Special provisions (IATA)	:	A97, A158, A179, A197, A215
ERG code (IATA)	:	9L

Inland waterway transport

Classification code (ADN)	:	M7
Special provisions (ADN)	:	274, 335, 375, 601
Limited quantities (ADN)	:	5 kg
Excepted quantities (ADN)	:	E1
Equipment required (ADN)	:	PP, A
Number of blue cones/lights (ADN)	:	0
Additional requirements/Remarks (ADN)	:	* Only in the molten state. ** For carriage in bulk see also 7.1.4.1. ** * Only in the case of transport in bulk.

Rail transport

Classification code (RID)	:	M7
Special provisions (RID)	:	274, 335, 375, 601
Limited quantities (RID)	:	5kg
Excepted quantities (RID)	:	E1
Packing instructions (RID)	:	P002, IBC08, LP02, R001
Special packing provisions (RID)	:	PP12, B3
Mixed packing provisions (RID)	:	MP10
Portable tank and bulk container instructions (RID)	:	T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (RID)	:	TP33
Tank codes for RID tanks (RID)	:	SGAV, LGBV
Transport category (RID)	:	3
Special provisions for carriage – Packages (RID)	:	W13
Special provisions for carriage – Bulk (RID)	:	VC1, VC2
Special provisions for carriage - Loading, unloading and handling (RID)	:	CW13, CW31
Colis express (express parcels) (RID)	:	CE11
Hazard identification number (RID)	:	90

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

All chemical substances in this product are listed as “Active” in the EPA (Environmental Protection Agency) “TSCA Inventory Notification (Active-Inactive) Requirements Rule” (“the Final Rule”) of Feb 2019, as amended Feb 2021 or are otherwise exempt, or regulated by other agencies such as FDA or FIFRA except the following:

3-Amino-7-diethylamino-5-phenylphenazinium chloride	(CAS-No.) 4569-86-2
Phosphate(1-), hexafluoro-, potassium	(CAS-No.) 17084-13-8

Germany

Water hazard class (WGK)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling	:	None of the components are listed

Denmark

Danish National Regulations	:	Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Switzerland

Storage class (LK)	:	LK 6.1 - Toxic materials
Chemicals Ordinance (SR 813.11)	:	Group 2

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Version 1.0.

Other information	:	SDS Prepared for LGC by: Pace Analytical Services, Inc. Product Regulatory Services Group 1800 Elm Street Minneapolis, MN 55414 United States 612-656-1175 paceSDS@pacelabs.com
Data sources	:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Classification for the USA in accordance with 29 CFR 1910.1200 (2012). Classification for the EU in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. ECHA (European Chemicals Agency).
Educational advice	:	By normal use of this product is meant use in accordance with the instructions on the packaging.

Abbreviations and acronyms	
ACGIH	American Conference of Governement Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
EC50	Median effective concentration

Abbreviations and acronyms	
EC-No.	European Community number
ED	Endocrine disrupting properties
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
OEL	Occupational Exposure Limit
OSHA	Occupational Safety and Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STOT	Specific target organ toxicity
TRGS	Technical Rules for Hazardous Substances
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Acute Toxicity, Catetgory 4 (Oral)	Calculation method
Acute Toxicity, Category 3 (Inhalation)	Calculation method
Skin Corrosion, Category 1B	Specific concentration limit
Eye Damage, Category 1	Specific concentration limit
Skin Sensitization, Category 1	Specific concentration limit
Specific target organ toxicity, Repeated exposure, Category 2	Specific concentration limit
Hazardous to the aquatic environment — Acute Hazard, Category 1	Calculation method
Hazardous to the aquatic environment — Chronic Hazard, Category 1	Calculation method

Safety Data Sheet (SDS), EU

This information is disclosed to the best of LGC's knowledge. This document does not constitute a contractual relationship with product end users or handlers with respect to the possible presence of hazards in this item. Disposal should be in accordance with applicable regional, national and local laws and regulations.