

Section A8

Measures necessary to protect man, animals and the environment

**Official
use only**

**Subsection
(Annex Point)**

8.1

Recommended methods and precautions concerning handling, use, storage, transport or fire (IIA8.1)

8.1.0 Methods and precautions concerning placing on the market

For some applications a premix is prepared from DBNPA powder by dissolution of DBNPA technical in a closed mixing vessel. Introducing the DBNPA technical in the mixing vessel is done via automatic vacuum suction in completely enclosed systems.

DBNPA may also be dissolved by hand in a suitable solvent on dedicated mixing vessels by specialised worker on site.

In any case, all professional workers are trained and use personal protective equipment as follows:

- Waterproof gloves with sleeves long enough to cover the wrists + forearms
- Safety glasses with side shields
- If necessary, a chemical respirator
- A waterproof suite with hood
- Rubber boots

Workers are also trained to treat spills with Na₂S₂O₅ to deactivate DBNPA.

8.1.1 Methods and precautions concerning production, handling and use of the active substance and its formulations

Ventilation must be sufficient to maintain atmospheric concentration below exposure limit. Avoid temperatures above 70°C (158°F). Product decomposes above melting temperature. Generation of gas during decomposition can cause pressure in closed systems. Stable under recommended storage conditions.

Safety shower and eye bath should be provided

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. Use the following CE approved air-purifying respirator: when dust/mist are present use a particulate filter, type P2 (meeting standard EN 143). When combinations of vapours, acids, or dusts/mists are present use an organic vapour cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

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Hand protection:

Use chemical resistant gloves classified under Standard EN374:
Protective gloves against chemicals and micro-organisms.
Material: Neoprene. Polyvinyl chloride (“PVC “or “vinyl”).
Nitrile/butadiene rubber (“nitrile” or “NBR”).

Eye protection:

Use chemical safety goggles. Chemical goggles should be consistent with EN 166 or equivalent. Eye wash fountain should be located in immediate work area.

Skin and body protection:

Use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Ingestion:

Use food personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Bystanders:

DBNPA is only applied by professionals. Bystanders should not be present or should be protected by the same PPE as the worker handling DBNPA.

Environment:

The environmental risk assessments performed for the uses of DBNPA presented in detail in DocIIB, have shown that there is no unacceptable risk for the environment resulting from the use of DBNPA and the release of DBNPA via the drain. However, facilities applying DBNPA are prepared to treat residues (spills) of DBNPA with bisulphite to deactivate DBNPA. Due to the low vapour pressure, the risk for contamination of the air compartment via ventilation systems is low.

8.1.2 Methods and precautions concerning storage of the active substance and its formulations

Store in original container.
Use within 36 months.
Storage temperature < 35°C.
Avoid oxidizing agents and reducing agents.
Keep away from light and heat.
Avoid heating above decomposition temperature.

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8.1.3 Methods and precautions concerning transport of the active substance and its formulations

[REDACTED]:

IMO

Proper shipping name: Toxic solid, Organic, n.o.s
(2,2-dibromo-3-nitrilopropionamide)
Class: 6.1 Toxic substances
Label: TOXIC (6.1)
Marking: MARINE POLLUTANT
Packing Group: II

ADR/RID

Proper shipping name: Toxic solid, Organic, n.o.s
(2,2-dibromo-3-nitrilopropionamide)
Class: 6.1 - Toxic substances
Danger Label Model No.: 6.1
Classification Code: T2
Packing group: II
Hazard identification No. 60

ICAO/IATA

Hazard Label (s): Toxic
Class: 6.1

DOT

Proper shipping name: Toxic solid, organic, n.o.s.
(2,2-dibromo-3-nitrilopropionamide)
Class: 6.1 - Poisons
Label: POISON (6)
Marking: MARINE POLLUTANT
Packing Group: II

[REDACTED]:

ROAD & RAIL

Proper Shipping Name: CORROSIVE SOLID, TOXIC,
N.O.S.
Technical Name: 2,2-DIBROMO-3-
NITRILOPROPIONAMIDE
Hazard Class: 6.1 ID Number: UN2923 Packing Group: PG
III

OCEAN

Proper Shipping Name: CORROSIVE SOLID, TOXIC,
N.O.S.
Technical Name: 2,2-DIBROMO-3-
NITRILOPROPIONAMIDE
Hazard Class: 6.1 ID Number: UN2923 Packing Group: PG
III
EMS Number: F-A,S-B
Marine pollutant.: No

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AIR

Proper Shipping Name: CORROSIVE SOLID, TOXIC,
N.O.S.

Technical Name: 2,2-DIBROMO-3-
NITRILOPROPIONAMIDE

Hazard Class: 6.1 ID Number: UN2923 Packing Group: PG
III

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8.1.4 Methods and precautions concerning fire of the active substance and its formulations

Avoid contact with: Amines. Strong bases. Strong oxidizers. Strong reducing agents.

Material is not combustible. Use extinguishing media appropriate to surrounding fire conditions.

Cool containers with water spray.

Fire fighters should wear full protective clothing (includes fire fighting helmet, coat, trousers, boots, and gloves) and self-contained breathing apparatus (SCBA) in positive pressure mode. Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location.

Fire conditions may cause this product to decompose.

When heated to decomposition, may release poisonous and corrosive fumes.

Container may vent and/or rupture due to fire.

8.2

In case of fire, nature of reaction products, combustion gases, etc. (IIA8.2)

Decomposition products may include and are not limited to: bromine, carbon dioxide, dibromoacetonitrile, hydrogen bromide, nitrogen oxides and traces of cyanogen bromide, ethyl bromide, methyl bromide.

8.3

Emergency measures in case of an accident (IIA8.3)

8.3.1 Specific treatment in case of an accident, e.g. first-aid measures, antidotes, medical treatment if available

Eye contact

Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.

Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. Suitable emergency safety shower facility should be immediately available.

Inhalation

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Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Ingestion

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

8.3.2 Emergency measures to protect the environment

Contain spilled material if possible. Collect in suitable and properly labelled containers.

Keep upwind of spill. Ventilate area of leak or spill. Only trained and properly protected personnel must be involved in clean-up operations. Spilled material may cause a slipping hazard. Use appropriate safety equipment.

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Spills or discharge to natural waterways is likely to kill aquatic organisms.

8.4

Possibility of destruction or decontamination following release in or on the following: (a) Air; (b) Water, including drinking water; (c) Soil (IIA8.4)

8.4.1 Possibility of destruction or decontamination following release in the air

DBNPA is not volatile. Release to air is therefore unlikely.

8.4.2 Possibility of destruction or decontamination following release in water, including drinking water

DBNPA can be deactivated with bisulphite.

8.4.3 Possibility of destruction or decontamination following release in or on soil

Remove/clean up material by use of a vacuum system/pumps or sweep up. Containerise and label properly for disposal as a hazardous waste.

8.5

Procedures for waste management of the active substance for

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industry or professional users e.g. possibility of re-use or recycling, neutralisation, conditions for controlled discharge, and incineration (IIA8.5)

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water. Avoid release to the environment.

8.5.1 Possibility of re-use or recycling

Due to its high reactivity DBNPA cannot be recycled or re-used.

8.5.2 Possibility of neutralisation of effects

Reaction with bisulphite deactivates the biocidal activity of DBNPA.

8.5.3 Conditions for controlled discharge including leachate qualities on disposal

DBNPA should be dissolved or mixed with a combustible solvent and burnt in a chemical incinerator equipped with an afterburner or scrubber. All federal, state and local environmental regulations should be observed when disposing of DBNPA.

8.5.4 Conditions for controlled incineration

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations when disposing of this material.

8.6

Observations on undesirable or unintended side-effects, e.g. on beneficial and other non-target organisms (IIA8.6)

No observations of undesirable or unintended side effects are known to the applicants.

8.7

Identification of any substances falling within the scope of List I or List II of the Annex to Directive 80/68/EEC on the protection of groundwater against pollution caused by certain dangerous substances (IIA8.7)

DBNPA and its impurities present in the active substance as manufactured fall within the scope of List 1, sub-point 1 “organohalogen compounds” of the Annex to Directive 80/68/EEC.

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Evaluation by Competent Authorities		
Use separate "evaluation boxes" to provide transparency as to the comments and views submitted		
EVALUATION BY RAPPORTEUR MEMBER STATE		
Date		
Materials and methods		
Results and discussion		
Conclusion		
Reliability		
Acceptability		
Remarks		
Date		
Results and discussion		
Conclusion		
Reliability		
Acceptability		
Remarks		