

## Bismuth Subnitrate (with Mineral Oil) Formulation

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

### SECTION 1: IDENTIFICATION

Product name : Bismuth Subnitrate (with Mineral Oil) Formulation

#### Manufacturer or supplier's details

Company : MSD

Address : 91-105 Harpin Street  
Bendigo 3550, Victoria Australia

Telephone : 1 800 033 461

Emergency telephone number : Poisons Information Centre: Phone 13 11 26

E-mail address : EHSDATASTEWARD@msd.com

#### Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product

Restrictions on use : Not applicable

---

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS Classification

Specific target organ toxicity - repeated exposure : Category 1 (Central nervous system)

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H372 Causes damage to organs (Central nervous system) through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

**Response:**  
P314 Get medical advice/ attention if you feel unwell.

**Disposal:**

## Bismuth Subnitrate (with Mineral Oil) Formula- tion

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Bismuth hydroxide nitrate oxide	1304-85-4	>= 60 -<= 100
White mineral oil (petroleum)	8042-47-5	>= 10 -< 30
Fatty acids, C14-26, aluminum salts	97404-28-9	< 10

## SECTION 4. FIRST AID MEASURES

- General advice : In the case of accident or if you feel unwell, seek medical advice immediately.  
When symptoms persist or in all cases of doubt seek medical advice.
- If inhaled : If inhaled, remove to fresh air.  
Get medical attention if symptoms occur.
- In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.  
Get medical attention if symptoms occur.
- In case of eye contact : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.
- If swallowed : If swallowed, DO NOT induce vomiting.  
Get medical attention if symptoms occur.  
Rinse mouth thoroughly with water.
- Most important symptoms and effects, both acute and delayed : Causes damage to organs through prolonged or repeated exposure.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
- Notes to physician : Treat symptomatically and supportively.

## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : None known.
- Specific hazards during fire- : Exposure to combustion products may be a hazard to health.

## Bismuth Subnitrate (with Mineral Oil) Formula- tion

Version 3.4	Revision Date: 30.09.2023	SDS Number: 5060462-00008	Date of last issue: 04.04.2023 Date of first issue: 17.10.2019
----------------	------------------------------	------------------------------	---

- fighting  
Hazardous combustion prod- : Nitrogen oxides (NO<sub>x</sub>)  
ucts : Metal oxides  
 : Carbon oxides
- Specific extinguishing meth- : Use extinguishing measures that are appropriate to local cir-  
ods : cumstances and the surrounding environment.  
 : Use water spray to cool unopened containers.  
 : Remove undamaged containers from fire area if it is safe to do  
 : so.  
 : Evacuate area.
- Special protective equipment : In the event of fire, wear self-contained breathing apparatus.  
for firefighters : Use personal protective equipment.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protec- : Use personal protective equipment.  
tive equipment and emer- : Follow safe handling advice (see section 7) and personal pro-  
gency procedures : tective equipment recommendations (see section 8).
- Environmental precautions : Avoid release to the environment.  
 : Prevent further leakage or spillage if safe to do so.  
 : Retain and dispose of contaminated wash water.  
 : Local authorities should be advised if significant spillages  
 : cannot be contained.
- Methods and materials for : Soak up with inert absorbent material.  
containment and cleaning up : For large spills, provide dyking or other appropriate contain-  
 : ment to keep material from spreading. If dyked material can  
 : be pumped, store recovered material in appropriate container.  
 : Clean up remaining materials from spill with suitable absor-  
 : bent.  
 : Local or national regulations may apply to releases and dis-  
 : posal of this material, as well as those materials and items  
 : employed in the cleanup of releases. You will need to deter-  
 : mine which regulations are applicable.  
 : Sections 13 and 15 of this SDS provide information regarding  
 : certain local or national requirements.

### SECTION 7. HANDLING AND STORAGE

- Technical measures : See Engineering measures under EXPOSURE  
 : CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Do not breathe dust, fume, gas, mist, vapours or spray.  
 : Do not swallow.  
 : Avoid contact with eyes.  
 : Avoid prolonged or repeated contact with skin.  
 : Wash skin thoroughly after handling.  
 : Handle in accordance with good industrial hygiene and safety

## Bismuth Subnitrate (with Mineral Oil) Formula- tion

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

- practice, based on the results of the workplace exposure assessment  
Do not eat, drink or smoke when using this product.  
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.  
When using do not eat, drink or smoke.  
Wash contaminated clothing before re-use.  
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Conditions for safe storage : Keep in properly labelled containers.  
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m <sup>3</sup>	AU OEL
		TWA (Inhalable particulate matter)	5 mg/m <sup>3</sup>	ACGIH
Fatty acids, C14-26, aluminum salts	97404-28-9	TWA (Respirable particulate matter)	1 mg/m <sup>3</sup> (Aluminium)	ACGIH

- Engineering measures** : Use feasible engineering controls to minimize exposure to compound.  
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

#### Personal protective equipment

- Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.
- Filter type : Combined particulates and organic vapour type
- Hand protection : Chemical-resistant gloves
- Material : Chemical-resistant gloves

**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

Eye protection : Wear safety glasses with side shields or goggles.  
If the work environment or activity involves dusty conditions,  
mists or aerosols, wear the appropriate goggles.  
Wear a faceshield or other full face protection if there is a  
potential for direct contact to the face with dusts, mists, or  
aerosols.

Skin and body protection : Work uniform or laboratory coat.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : paste

Colour : White to light yellow

Odour : No data available

Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : No data available

Evaporation rate : Not applicable

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Relative density : No data available

Density : No data available

Solubility(ies)  
Water solubility : No data available

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

Decomposition temperature : No data available

Viscosity  
Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle size : No data available

---

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : None known.

Conditions to avoid : None known.

Incompatible materials : None.

Hazardous decomposition products : No hazardous decomposition products are known.

---

**SECTION 11. TOXICOLOGICAL INFORMATION**

Exposure routes : Skin contact  
Ingestion  
Eye contact

**Acute toxicity**

Not classified based on available information.

**Components:****Bismuth hydroxide nitrate oxide:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.07 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 436  
Remarks: Based on data from similar materials

**White mineral oil (petroleum):**

**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**Fatty acids, C14-26, aluminum salts:**

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.15 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Remarks: Based on data from similar materials

**Skin corrosion/irritation**

Not classified based on available information.

**Components:****Bismuth hydroxide nitrate oxide:**

Species : reconstructed human epidermis (RhE)  
Method : OECD Test Guideline 439

Result : No skin irritation

**White mineral oil (petroleum):**

Species : Rabbit  
Result : No skin irritation

**Fatty acids, C14-26, aluminum salts:**

Species : reconstructed human epidermis (RhE)  
Method : OECD Test Guideline 431  
Remarks : Based on data from similar materials

Species : reconstructed human epidermis (RhE)  
Method : OECD Test Guideline 439  
Remarks : Based on data from similar materials

Result : No skin irritation

**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:****Bismuth hydroxide nitrate oxide:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405

**White mineral oil (petroleum):**

Species : Rabbit  
Result : No eye irritation

**Fatty acids, C14-26, aluminum salts:**

Species : Rabbit  
Result : No eye irritation  
Method : OECD Test Guideline 405  
Remarks : Based on data from similar materials

**Respiratory or skin sensitisation****Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

**Components:****Bismuth hydroxide nitrate oxide:**

Test Type : Local lymph node assay (LLNA)  
Exposure routes : Skin contact  
Species : Mouse  
Method : OECD Test Guideline 429  
Result : negative

**White mineral oil (petroleum):**

Test Type : Buehler Test  
Exposure routes : Skin contact  
Species : Guinea pig  
Result : negative

**Fatty acids, C14-26, aluminum salts:**

Test Type : Local lymph node assay (LLNA)  
Exposure routes : Skin contact  
Species : Mouse



**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

Method : OECD Test Guideline 429  
Result : negative  
Remarks : Based on data from similar materials

**Chronic toxicity****Germ cell mutagenicity**

Not classified based on available information.

**Components:****Bismuth hydroxide nitrate oxide:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Result: negative  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro

Method: OECD Test Guideline 473

Result: negative

**White mineral oil (petroleum):**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo  
cytogenetic assay)  
Species: Mouse  
Application Route: Intraperitoneal injection  
Method: OECD Test Guideline 474  
Result: negative  
Remarks: Based on data from similar materials

**Fatty acids, C14-26, aluminum salts:**

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)  
Method: OECD Test Guideline 471  
Result: negative  
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Remarks: Based on data from similar materials

**Carcinogenicity**

Not classified based on available information.

## Bismuth Subnitrate (with Mineral Oil) Formula- tion

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
3.4	30.09.2023	5060462-00008	Date of first issue: 17.10.2019

---

### Components:

#### **White mineral oil (petroleum):**

Species	:	Rat
Application Route	:	Ingestion
Exposure time	:	24 Months
Result	:	negative

#### **Reproductive toxicity**

Not classified based on available information.

### Components:

#### **Bismuth hydroxide nitrate oxide:**

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Result: negative
----------------------	---	--

Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative
-------------------------------	---	---

#### **White mineral oil (petroleum):**

Effects on fertility	:	Test Type: One-generation reproduction toxicity study Species: Rat Application Route: Skin contact Result: negative
----------------------	---	--

Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: negative
-------------------------------	---	--

#### **Fatty acids, C14-26, aluminum salts:**

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 422 Result: negative Remarks: Based on data from similar materials
----------------------	---	--

Effects on foetal development	:	Test Type: Reproduction/Developmental toxicity screening test Species: Rat
-------------------------------	---	---

## Bismuth Subnitrate (with Mineral Oil) Formulation

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

Application Route: Ingestion  
Method: OECD Test Guideline 414  
Result: negative  
Remarks: Based on data from similar materials

### STOT - single exposure

Not classified based on available information.

### STOT - repeated exposure

Causes damage to organs (Central nervous system) through prolonged or repeated exposure.

### Components:

#### Bismuth hydroxide nitrate oxide:

Target Organs : Central nervous system  
Assessment : Causes damage to organs through prolonged or repeated exposure.

### Repeated dose toxicity

### Components:

#### White mineral oil (petroleum):

Species : Rat  
LOAEL : 160 mg/kg  
Application Route : Ingestion  
Exposure time : 90 Days

Species : Rat  
LOAEL :  $\geq 1$  mg/l  
Application Route : inhalation (dust/mist/fume)  
Exposure time : 4 Weeks  
Method : OECD Test Guideline 412

#### Fatty acids, C14-26, aluminum salts:

Species : Rat  
LOAEL :  $\geq 1000$  mg/kg  
Application Route : Ingestion  
Exposure time : 42 Days  
Remarks : Based on data from similar materials

### Aspiration toxicity

Not classified based on available information.

### Experience with human exposure

### Components:

#### Bismuth hydroxide nitrate oxide:

Ingestion : Target Organs: Blood

## Bismuth Subnitrate (with Mineral Oil) Formulation

Version 3.4      Revision Date: 30.09.2023      SDS Number: 5060462-00008      Date of last issue: 04.04.2023  
Date of first issue: 17.10.2019

---

Symptoms: Methaemoglobinemia  
Target Organs: Central nervous system  
Symptoms: Neurological disorders

---

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### **Bismuth hydroxide nitrate oxide:**

- Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 137 mg/l  
Exposure time: 96 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 137 mg/l  
Exposure time: 48 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (green algae)): > 137 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201
- NOELR (Pseudokirchneriella subcapitata (green algae)): > 137 mg/l  
Exposure time: 72 h  
Test substance: Water Accommodated Fraction  
Method: OECD Test Guideline 201

##### **White mineral oil (petroleum):**

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202
- Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 100 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l  
Exposure time: 28 d

**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
3.4	30.09.2023	5060462-00008	Date of first issue: 17.10.2019

---

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 1,000 mg/l  
Exposure time: 21 d

**Persistence and degradability****Components:****White mineral oil (petroleum):**

Biodegradability : Result: Not readily biodegradable.  
Biodegradation: 31 %  
Exposure time: 28 d

**Fatty acids, C14-26, aluminum salts:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 81.2 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
Remarks: Based on data from similar materials

**Bioaccumulative potential****Components:****Fatty acids, C14-26, aluminum salts:**

Partition coefficient: n-octanol/water : log Pow: > 7  
Remarks: Calculation

**Mobility in soil**

No data available

**Other adverse effects**

No data available

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not dispose of waste into sewer.  
Dispose of in accordance with local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.  
If not otherwise specified: Dispose of as unused product.

---

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

UN number : Not applicable

## Bismuth Subnitrate (with Mineral Oil) Formula- tion

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
3.4	30.09.2023	5060462-00008	Date of first issue: 17.10.2019

---

Proper shipping name : Not applicable  
 Class : Not applicable  
 Subsidiary risk : Not applicable  
 Packing group : Not applicable  
 Labels : Not applicable

### IATA-DGR

UN/ID No. : Not applicable  
 Proper shipping name : Not applicable  
 Class : Not applicable  
 Subsidiary risk : Not applicable  
 Packing group : Not applicable  
 Labels : Not applicable  
 Packing instruction (cargo aircraft) : Not applicable  
 Packing instruction (passenger aircraft) : Not applicable

### IMDG-Code

UN number : Not applicable  
 Proper shipping name : Not applicable  
 Class : Not applicable  
 Subsidiary risk : Not applicable  
 Packing group : Not applicable  
 Labels : Not applicable  
 EmS Code : Not applicable  
 Marine pollutant : Not applicable

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

### National Regulations

#### ADG

UN number : Not applicable  
 Proper shipping name : Not applicable  
 Class : Not applicable  
 Subsidiary risk : Not applicable  
 Packing group : Not applicable  
 Labels : Not applicable  
 Hazchem Code : Not applicable

### Special precautions for user

Not applicable

---

## SECTION 15. REGULATORY INFORMATION

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

Prohibition/Licensing Requirements : Bismuth hydroxide nitrate oxide  
 Refer to model WHS Act and Regu-

## Bismuth Subnitrate (with Mineral Oil) Formula- tion

Version 3.4	Revision Date: 30.09.2023	SDS Number: 5060462-00008	Date of last issue: 04.04.2023 Date of first issue: 17.10.2019
----------------	------------------------------	------------------------------	---

lations for prohibition, authorisation  
and restricted use.

### The components of this product are reported in the following inventories:

AICS	:	not determined
DSL	:	not determined
IECSC	:	not determined

## SECTION 16: ANY OTHER RELEVANT INFORMATION

### Further information

Revision Date	:	30.09.2023
Sources of key data used to compile the Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <a href="http://echa.europa.eu/">http://echa.europa.eu/</a>
Date format	:	dd.mm.yyyy

### Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
AU OEL	:	Australia. Workplace Exposure Standards for Airborne Contaminants.
ACGIH / TWA	:	8-hour, time-weighted average
AU OEL / TWA	:	Exposure standard - time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumu-

**Bismuth Subnitrate (with Mineral Oil) Formula-  
tion**

Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
3.4	30.09.2023	5060462-00008	Date of first issue: 17.10.2019

---

lative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECL - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

AU / EN