

Material Safety Data Sheet



Issuing Date: 27-Mar-2013

Revision Date: 27-May-2014

Version 2

1. PRODUCT AND COMPANY INFORMATION

| | |
|----------------------------|--|
| Product ID: | 98740661 |
| Product Name | Nioxin Scalp Recovery Medicating Cleanser |
| Product Type | Finished Product - Consumer (Retail) and Professional Use |
| Recommended Use | Personal Beauty Care Product |
| Synonyms | No information available |
| Manufacturer | The Procter & Gamble Company Sharon Woods Innovation Center 11510 Reed Hartman Highway Cincinnati OH 45202 |
| E-mail Address | pgsds.im@pg.com |
| Emergency Telephone | Transportation (24 HR) CHEMTREC - 1-800-424-9300 (U.S./ Canada) or 1-703-527-3887 Mexico toll free in country: 800-681-9531 |

2. HAZARDS IDENTIFICATION

Emergency Overview

Irritating to eyes

OSHA regulatory status

Consumer Products as defined by the U.S. Consumer Product Safety Act which are used as intended (typical consumer duration and frequency) are exempt from the OSHA Hazard Communication Standard. When used in a professional setting (at a much higher frequency and duration than a typical consumer) this material would be considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

WHMIS

Not subject to WHMIS classification.

Principle routes of exposure

Eye contact.

General hazards

This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

| Chemical Name | CAS-No | Weight % |
|--|------------|----------|
| Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-(dodecyloxy)-, sodium salt (1:1) | 9004-82-4 | 5 - 10 |
| Sulfuric acid monododecyl ester sodium salt (1:1) | 151-21-3 | 3 - 7 |
| Amides, coco, N-hydroxyethyl | 68140-00-1 | 1 - 5 |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 13463-41-7 | 1 - 5 |

4. FIRST AID MEASURES

| | |
|---|--|
| General advice | No hazards which require special first aid measures. When symptoms persist or in all cases of doubt seek medical advice. |
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. If symptoms persist, call a physician. |
| Skin contact | If skin problems occur, discontinue use. If symptoms persist, call a physician. |
| Ingestion | Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. If symptoms persist, call a physician. |
| Inhalation | Move to fresh air. |
| Protection of first-aiders | Use personal protective equipment. |
| Most important symptoms/effects, acute and delayed | None known. |
| Notes to Physician | Treat symptomatically. |

5. FIRE-FIGHTING MEASURES

| | |
|---|--|
| Flash point | No information available |
| Suitable extinguishing media | Dry chemical, CO ₂ , water spray or alcohol-resistant foam. |
| Extinguishing media which shall not be used for safety reasons | No information available. |
| Special hazard | None known based on information supplied. |
| Special protective equipment for fire-fighters | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--|---|
| Personal precautions | Avoid contact with the skin and the eyes. |
| Advice for emergency responders | Use personal protective equipment. |
| Environmental precautions | Household: Do not discharge product into natural waters without pre-treatment or adequate dilution. Non-household: Should not be released into the environment. |

Methods for containment

Non-household: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods for cleaning up

Non-household: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Advice on safe handling

Keep out of the reach of children. Observe label precautions.

Technical measures/Storage conditions

Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | CAS-No | ACGIH TLV | OSHA PEL | Mexico PEL | |
|---------------|-----------|--|---|--|--|
| Zinc oxide | 1314-13-2 | STEL: 10 mg/m ³ respirable fraction TWA: 2 mg/m ³ respirable fraction | TWA: 5 mg/m ³ fume TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 5 mg/m ³ fume (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction (vacated) STEL: 10 mg/m ³ fume | Mexico: TWA 5 mg/m ³ Mexico: TWA 10 mg/m ³ Mexico: STEL 10 mg/m ³ | |
| Chemical Name | CAS-No | Alberta | Quebec | Ontario TWAEV | British Columbia |
| Zinc oxide | 1314-13-2 | TWA: 2 mg/m ³ STEL: 10 mg/m ³ | TWA: 10 mg/m ³ TWA: 5 mg/m ³ STEL: 10 mg/m ³ | TWA: 2 mg/m ³ STEL: 10 mg/m ³ | TWA: 2 mg/m ³ STEL: 10 mg/m ³ |

Legend:

TLV - Threshold Limit Value

TWAEV - Time Weighted Average Exposure Value

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)

PEL - Permissible Exposure Limit

Engineering Measures

Not applicable.

Personal Protective Equipment

Eye Protection If splashes are likely to occur, wear: Safety glasses with side-shields.

Hand Protection No special protective equipment required.

Skin and Body Protection No special protective equipment required.

Respiratory Protection No special protective equipment required.

Thermal hazards

Not applicable.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.

Environmental exposure controls

See section 6 for more information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State @20°C liquid
Appearance white, opaque, viscous liquid.
Odor Mint-like

| Property | Values | Note |
|--|--------------------------|-------------|
| pH value | 6.5 - 8.3 | |
| Melting/freezing point | No information available | |
| Boiling point/boiling range | No information available | |
| Flash point | No information available | |
| Evaporation rate | No information available | |
| flammability (solid, gas) | No information available | |
| Flammability Limits in Air | | |
| Upper flammability limit | No information available | |
| Lower Flammability Limit | No information available | |
| Vapor pressure | No information available | |
| Vapor density | No information available | |
| Relative density | No information available | |
| Water solubility | No information available | |
| Solubility in other solvents | No information available | |
| Partition coefficient: n-octanol/water | No information available | |
| Autoignition temperature | No information available | . |
| Decomposition temperature | No information available | . |
| Viscosity of Product | No information available | |
| Bulk Density | No information available | |

| Chemical Name | Partition Coefficient (n-octanol/water) |
|---|--|
| Sulfuric acid monododecyl ester sodium salt (1:1) | < -2.03 |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 0.9 |

VOC Content (%) Products comply with US state and federal regulations for VOC content in consumer products.
Oxidizing properties No information available

10. STABILITY AND REACTIVITY

Reactivity None under normal use conditions.
Stability Stable under normal conditions.
Hazardous polymerization Hazardous polymerization does not occur.
Hazardous Reactions None under normal processing.
Conditions to Avoid None under normal processing.
Materials to avoid None in particular.
Hazardous Decomposition Products None under normal use.

11. TOXICOLOGICAL INFORMATION

Product Information

Acute toxicity Irritating to eyes.

Principle routes of exposure Eye contact.

Inhalation

No known effect based on information supplied.

Skin contact

No known effect based on information supplied.

Ingestion

No known effect based on information supplied.

Eye contact

Irritating to eyes.

| Chemical Name | CAS-No | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--|------------|---|--|---|
| Sulfuric acid monododecyl ester sodium salt (1:1) | 151-21-3 | 977 mg/kg bw (OECD 401; rat) | > 500 mg/kg bw (Read across data C10-16ASO4, NH4; guideline: Standard Procedure #10; fixed dose procedure; rabbit; based on active ingredient) | - |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridine thionato-kappaS2]-, (T-4)- | 13463-41-7 | 269 mg/kg bw (OECD 401, rat) | > 2000 mg/kg bw (EPA OPP 81-2, rat) | 1.03 mg/L air (OECD 403, rat) |
| Zinc oxide | 1314-13-2 | > 5000 mg/kg bw (Similar to OECD 401; standard acute method; rat) | > 2000 mg/kg bw (OECD 402; standard acute method; rat) | > 5.7 mg/L air (Similar to OECD 403; standard acute method; rat; 4 h) |

Chronic Toxicity

Corrosivity

No known effect.

Sensitization

No known effect.

Neurological Effects

No known effect.

Reproductive toxicity

The product contains no substances known to be hazardous to health in concentrations which need to be taken into account.

Germ cell mutagenicity

There are no known mutagenic chemicals in this product.

Developmental toxicity

No known effect.

Teratogenicity

No known effect.

Carcinogenicity

Contains no ingredients above reportable quantities listed as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | CAS-No | Toxicity to algae | Toxicity to fish | Toxicity to Microorganisms | Toxicity to daphnia and other aquatic invertebrates | Toxicity to other organisms |
|---|------------|--|--|---|---|--|
| Sulfuric acid monododecyl ester sodium salt (1:1) | 151-21-3 | > 120 mg/L (Guideline: DIN 38412, part 9; <i>Desmodesmus subspicatus</i> ; static; freshwater; based on growth rate) | 29 mg/L (Similar to OECD 203; <i>Pimephales promelas</i> ; flow-through; freshwater; based on active ingredient) | EC50: 135 mg/L (Guideline not indicated; activated sludge; static; freshwater; respiration rate) | LC50: 5.55 mg/L (Guideline not indicated; <i>Ceriodaphnia dubia</i> ; flow-through; freshwater; based on active ingredient) | - |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 13463-41-7 | 0.0013 mg/L (Guideline EPA OPP 122-2, static, <i>Skeletonema costatum</i>) | 0.0026 mg/L (EPA OPP 72-1, flow-through, <i>Pimephales promelas</i>) | 2.4 mg/L (OECD 209, static, activated sludge) | 0.0082 mg/L (EPA OPP 72-2, flow-through, <i>Daphnia magna</i>) | - |
| Zinc oxide | 1314-13-2 | IC50: 0.136 mg/L (OECD 201; <i>Pseudokirchneriella subcapitata</i> ; static; freshwater; growth rate) | 0.112 mg/L (Read across data on Zinc chloride; ASTM, E-729-88; <i>Thymallus arcticus</i> ; static; freshwater) | EC50: > 1000 mg/L (OECD 209; activated sludge of a predominantly domestic sewage; static; freshwater; respiration rate) | 0.155 mg/L (Read across data on Zinc; US EPA 821-R-02-012; <i>Ceriodaphnia dubia</i> ; static; freshwater) | EC10: 350 mg/kg soil dw (Read across data on zinc dichloride; ISO 11268-2; <i>Eisenia fetida</i> ; annelids; natural soil) |
| Chemical Name | CAS-No | Toxicity to algae | Toxicity to fish | Toxicity to Microorganisms | Toxicity to daphnia and other aquatic invertebrates | Toxicity to other organisms |
| Sulfuric acid monododecyl ester sodium salt (1:1) | 151-21-3 | 30 mg/L (Guideline: DIN 38412, part 9; <i>Desmodesmus subspicatus</i> ; static; freshwater; based on growth rate) | > 1.357 mg/L (Guideline not indicated; <i>Pimephales promelas</i> ; flow-through; freshwater; 42 d) | | 0.88 mg/L (Similar to EPA-600/489/001 and USEPA OPPTS 850.1300; <i>Ceriodaphnia dubia</i> ; flow-through; freshwater; 7 d) | |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 13463-41-7 | NOEC: 0.46 µg/L (0.00046 mg/L) | NOEC: 1.22 µg/L (0.00122 mg/L) | 0.1 mg/L (OECD 209, static, activated sludge) | NOEC: 2.28 µg/L (0.00228 mg/L) | |
| Zinc oxide | 1314-13-2 | 0.024 mg/L (OECD 201; <i>Pseudokirchneriella subcapitata</i> ; static; freshwater; growth rate) | 0.039 mg/L (Read across data on Zinc chloride; OECD 215; <i>Oncorhynchus mykiss</i> ; flow-through; freshwater) | NOEC: 0.1 mg/L (Guideline: ISO DIS 9509; activated sludge of a predominantly domestic sewage; static; freshwater; concentration based on element; nitrification rate) | 0.0056 mg/L (Read across data on Zinc sulfate; EPA/600/R-95-136; <i>Holmesimysis costata</i> ; semi-static; saltwater) | 0.0228 mg/L (Read across data on Zinc chloride; microcosm/mesocosm; flow-through; freshwater; 4 wk) |

Persistence and degradability

..

| Chemical Name | Ready Test Results | Persistence and degradability |
|---|--|---|
| Sulfuric acid monododecyl ester sodium salt (1:1) | 95 % (OECD 301 B; aerobic; activated sludge, domestic, non-adapted; CO ₂ evolution; meets 10 d window criteria) | 87.3 % (Similar to OECD 314D; aerobic; natural water / sediment; CO ₂ evolution; 35 d) |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 39% (OECD 301 B) | t _{1/2} : 17 hours (River water at ambient temperature) |

Bioaccumulative potential

| Chemical Name | Bioconcentration factor (BCF) |
|---|--|
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 11 (OECD 305 E, Crassostrea virginica) |
| Zinc oxide | 60960 |

Mobility

| Chemical Name | KOC Values |
|---|---|
| Sulfuric acid monododecyl ester sodium salt (1:1) | 446 (Guideline not indicated; HPLC estimation method; adsorption; sediment; at 25 C) |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | Koc (adsorption): 2347 (Soil #1 sandy loam), 783 (Soil #2 loam), 10632 (Sediment #1 sandy loam) and 3596 (Sediment #2 silt loam); Koc (desorption): 3,293 (Soil #1 sandy loam), 873 (Soil #2 loam), 21814 (Sediment #1 sandy loam) and 6523 (Sediment #2 silt loam) |

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products **Household:** Do not discharge product into natural waters without pre-treatment or adequate dilution. **Non-household:** Should not be released into the environment. Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

California Hazardous Waste Codes 331
(non-household setting)

14. TRANSPORT INFORMATION

| | |
|-------------|---------------|
| DOT | Not regulated |
| TDG | Not regulated |
| MEX | Not regulated |
| ATA | Not regulated |
| ICAO | Not regulated |
| IMDG | Not regulated |

15. REGULATORY INFORMATION

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.:

| Chemical Name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---|------------|----------|-------------------------------|
| Carbonic acid, zinc salt (1:1) | 3486-35-9 | 1.54077 | 1.0 |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | 13463-41-7 | 1 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden release of pressure hazard | No |
| Reactive Hazard | No |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):.

| Chemical Name | CAS-No | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|--------------------------------|-----------|--------------------------|------------------------------------|
| Carbonic acid, zinc salt (1:1) | 3486-35-9 | 1000 lb | - |
| hydrogen chloride | 7647-01-0 | 5000 lb | 5000 lb |

Food and Drug Administration (FDA)

The product described in this Material Safety Data Sheet is regulated under the Federal Food, Drug, and Cosmetics Act and is safe to use as per directions on container, box or accompanying literature (where applicable).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substance(s) which are either listed as hazardous air pollutants (HAPS) or VOC's per the Clean Air Act:.

| Chemical Name | CAS-No | CAA (Clean Air Act) - 1990 Hazardous Air Pollutants |
|-------------------|-----------|---|
| hydrogen chloride | 7647-01-0 | X |

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):.

| Chemical Name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|-----------------------------|------------------------|---------------------------|----------------------------|
| Carbonic acid, zinc salt (1:1) | 1000 lb | X | - | X |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | - | X | - | - |
| Zinc oxide | - | X | - | - |
| hydrogen chloride | 5000 lb | - | - | X |

U.S. State Regulations (RTK)

| Chemical Name | New Jersey |
|---|------------|
| Carbonic acid, zinc salt (1:1) | X |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | X |

| Chemical Name | Massachusetts |
|--------------------------------|---------------|
| Carbonic acid, zinc salt (1:1) | X |

| Chemical Name | Pennsylvania |
|---|--------------|
| Carbonic acid, zinc salt (1:1) | X |
| Zinc, bis[1-(hydroxy-kappaO)-2(1H)-pyridinethionato-kappaS2]-, (T-4)- | X |
| Zinc oxide | X |
| Sulfuric acid sodium salt (1:2) | X |
| hydrogen chloride | X |
| Glycerin | X |
| Propylene glycol | X |

| Chemical Name | Rhode Island |
|--------------------------------|--------------|
| Carbonic acid, zinc salt (1:1) | X |

California Proposition 65

This product is not subject to warning labeling under California Proposition 65.

International Regulations**Canada****WHMIS Hazard Class**

Not subject to WHMIS classification.

WHMIS Statement

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR. This product is regulated by the Food and Drug Administration of Health Canada and is therefore exempt from the requirements of CEPA.

International Inventories**TSCA**

Product is a personal care product and regulated under FDA.

CEPA

P&G Canadian Regulatory reviewed finished products to ensure CEPA Compliance.

Perfumes contained with the products comply with appropriate IFRA guidance.

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

CEPA - Canadian Environmental Protection Act

16. OTHER INFORMATION

Issuing Date: 27-Mar-2013
Revision Date: 27-May-2014

Disclaimer

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of MSDS