SAFETY DATA SHEETS

This SDS packet was issued with item: 078945167

N/A

| Safety Data Sheet | | | |
|-------------------------|---------------------------|------------------|------------------|
| Clindamycin Phos | phate Topical Solution US | P, 1% | |
| Strength: 1 % | Pack Size: 30 mL | NDC 72578-084-02 | Revision No.: 00 |
| | 60 mL | 72578-084-03 | |

Emergency Overview

Clindamycin phosphate topical solution USP, 1% contains clindamycin phosphate, USP, at a concentration equivalent to 10 mg clindamycin per milliliter.

Section 1 : Identification

| Product Name: | Clindamycin Phosphate Topical Solution, USP 1% | | |
|----------------|--|--|--|
| Formula: | $C_{18}H_{34}CIN_2O_8PS$ | | |
| Chemical Name: | Methyl 7-chloro-6,7,8-trideoxy-6-(1 methyl-trans-4-propyl-L-2-pyrrolidinecarboxamido)-1-thio-L-threo- α -D-galacto octopyranoside 2-(dihydrogen phosphate). | | |
| | CH_{3} $H-C-CI$ $C_{3}H_{7}$ $C-NH-C-H$ HO OH SCH_{3} $O-P-OH$ | | |

Molecular Weight: 504.96 g/mol

Description: Clindamycin phosphate topical solution USP, 1% contains clindamycin phosphate, USP, at a concentration equivalent to 10 mg clindamycin per milliliter. Clindamycin phosphate is a water soluble ester of the semi-synthetic antibiotic produced by a 7(S)-chloro-substitutiion of the 7(R)-hydroxyl group of the parent antibiotic lincomycin.

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Dosage forms and strengths: Apply a thin film of Clindamycin phosphate topical solution, twice daily to affected area. Keep all liquid dosage forms in containers tightly closed.

Manufacturer / supplier identification

| Company | Cadila Healthcare Ltd. Ahmedabad, India |
|-------------------------|---|
| Address | Cadila Healthcare, Ltd. Changodar (Topical Formulation facility) Plot No. 254, Opp. Laxmi Narayan Petrol Pump, N. H 8A, Ahmedabad -382210 India |
| Contact for information | Tel.:+91 2717-616430 Fax: +91 2717-616430 |
| Emergency Telephone No | Tel.:+91 2717-616401 |

| Safety Data Sheet Clindamycin Phosph | ate Topical | Solution USI | 2,1% | | |
|---|-------------|--|--------------------------|---|------------------|
| Strength: 1 % | Pack Siz | 2e: 30 mL 60 mL | NDC 72578-08 72578-08 | 34-02 84-03 | Revision No.: 00 |
| Recommended use / T Category | herapeutic | Clindamycin phosphate topical solution USP, 1% is indicated in the treatment of acne vulgaris. The mechanism of action of Clindamycin in treating acne vulgaris is unknown. In view of the potential for diarrhea, bloody diarrhea and pseudomembranous colitis, the physician should consider whether other agents are more appropriate. | | | |
| Restriction on Use / Contraindications | | Clindamycin phosphate topical solution is contraindicated individuals with a history of hypersensitivity to preparatic containing clindamycin or lincomycin, a history of region enteritis or ulcerative colitis, or a history of antibiotic- associated colitis. | | aindicated in preparations of regional biotic- | |

Section 2 : Hazard (s) Identification

Over Dose Effect

| Dose and Administration | Apply a thin film of Clindamycin phosphate topical solution, twice daily to affected area. |
|-------------------------|--|
| | Keep all liquid dosage forms in containers tightly closed. |

Adverse effectsIn 18 clinical studies of various formulations of Clindamycin
phosphate using placebo vehicle and/or active comparator drugs as
controls, patients experienced a number of treatment emergent
adverse dermatologic events.

| Treatment | Number of patients reporting events | | | |
|---------------|-------------------------------------|---------|----------|--|
| Emergent | Solution | Gel Gel | Lotion | |
| Adverse | n=553(%) | n=148 | N=160(%) | |
| Event | | | | |
| Burning | 62 (11) | 15 (10) | 17 (11) | |
| Itching | 36 (7) | 15 (10) | 17 (11) | |
| Burning/Itchi | 60 (11) | # (-) | # (-) | |
| ng | | | | |
| Dryness | 105 (19) | 34 (23) | 29 (18) | |
| Erythema | 86 (16) | 10 (7) | 22 (14) | |
| Oiliness/Oily | 8 (1) | 26 (18) | 12* (10) | |
| Skin | | | | |
| peeling | 61 (11) | # (-) | 11 (7) | |

not recorded

* of 126 subjects

Orally and parenterally administered clindamycin has been associated with severe colitis which may end fetally. Cases of diarrhea, bloody diarrhea and colitis (including pseudomembranous colitis) have been reported as adverse reactions in patients treated with oral and parenteral formulation of clindamycin and rarely with topical clindamycin. Abdominal pain, gastrointestinal disturbances, gram-negative folliculitis, eye pain and contact dermatitis have also been reported in association with the use of topical formulations of clindamycin. Topically applied clindamycin phosphate can be

absorbed in sufficient amount to produce systemic effects.

| Safety Data Sheet | | | | | |
|--|---|--|---|--|--|
| Clindamycin Phosphate Topical Solution USP, 1% | | | | | |
| Strength: 1 % | Pack Size: 30 mL 60 mL | NDC 72578-084-02 72578-084-03 | Revision No.: 00 | | |
| Pregnancy Comments | Teratogenic effect In clinical trials wi of clindamycin dur associated with an There are no adequ trimester of pregna trimester of pregna | th pregnant women, the system ing the second and third trimest increased frequency of congeni ate studies in pregnant women ncy. Clindamycin should be use ncy only if clearly needed. | ic administration ters has not been tal abnormalities. during the first ed during first | | |
| Pharmacokinteics | Following multiple a concentration equisopropyl alcohol a clindamycin are pr 0.2% of the dose is Although clindamy hydrolysis converts clindamycin. | Following multiple topical applications of clindamycin phosphate at a concentration equivalent to 10 mg clindamycin per mL in an isopropyl alcohol and water solution, very low levels of clindamycin are present in the serum (0–3 ng/mL) and less than 0.2% of the dose is recovered in urine as clindamycin. Although clindamycin phosphate is inactive in vitro, rapid in vivo hydrolysis converts this compound to the antibacterially active clindamycin. | | | |
| Microbiology | Clindamycin inhib 23S RNA of the 50 bacteriostatic. | its bacterial protein synthesis by S subunit of the ribosome. Clir | y binding to the adamycin is | | |
| Antimicrobial Activity | Clindamycin is act Propionibacterium unknown. | ive in vitro against most isolate acnes; however, the clinical sig | s of mificance is | | |
| Resistance | Resistance to clind specific bases of th clindamycin and lin for these antibacter observed among lin Macrolideinducible isolates of macrolid | amycin is most often caused by e 23S ribosomal RNA. Cross-ra ncomycin is complete. Because ial drugs overlap, cross resistar ncosamides, macrolides and stra e resistance to clindamycin occu de-resistant bacteria. | modification of esistance between the binding sites ace is sometimes eptogramin B. ars in some | | |

Safety Data SheetClindamycin Phosphate Topical Solution USP, 1%Strength: 1 %Pack Size: 30 mLNDC 72578-084-02

60 mL 72578-084-03 Section 3: Composition / information on ingredients Active: Clindamycin phosphate, USP 10 mg/mL (1%) **Contains:** Section 4: First -aid measures Flush with water while holding eyelids open for at least 15 **Eye Contact:** minutes. If irritation occurs or persists, get medical attention. Remove contaminated clothing and wash exposed area with **Skin Contact:** soap and water. Obtain medical assistance if irritation occurs. Never give anything by mouth to an unconscious person. **Ingestion:** Wash out mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical attention immediately. Inhalation: Remove to fresh air and keep patient at rest. Seek medical attention immediately. Symptoms and Effects of For information on potential signs and symptoms of exposure. **Exposure:**

Revision No.: 00

| Section 5: Fire -fighting measures | |
|------------------------------------|--|
| | |

| Extinguishing Media: | Use carbon dioxide, dry chemical, or water spray. |
|--------------------------------|--|
| Hazardous Combustion Products: | Emits toxic fumes of carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides and other sulfur-containing compounds. |
| Fire Fighting Procedures: | During all fire fighting activities, wear appropriate protective equipment, including self- contained breathing apparatus. |
| Fire / Explosion Hazards: | Flammable liquid. Vapors will form flammable or explosive mixtures with air at room temperature. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. |

Section 6: Accidental Release Measures

| Health and Safety Precautions: | Personnel involved in clean-up should wear appropriate personal protective equipment. Minimize exposure. |
|---|--|
| Measures for Cleaning / | Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity). |
| Collecting: | Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly. |
| Measures for Environmental | Place waste in an appropriately labeled, sealed container for disposal. |
| Protections: | Care should be taken to avoid environmental release. |
| Additional Consideration for Large Spills: | Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel. |

Section 7: Handling and Storage

| General Handling: | Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. When handling, use appropriate personal protective equipment. Wash hands and any exposed skin after removal of PPE. Releases to the environment should be avoided. Review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure or environmental releases. Potential points of process emissions of this material to the atmosphere should be controlled with dust collectors, HEPA filtration systems or other equivalent controls. | | |
|----------------------------|--|--|--|
| Storage Conditions: | Store at 20° | $^{\circ}$ to 25 $^{\circ}\text{C}$ (68 $^{\circ}$ to 77 $^{\circ}\text{F})$ [see USP Controlled Room Temperature]. | |
| Section 8: Exposure contro | ls/personal | protection | |
| Engineering Controls: | | Engineering controls should be used as the primary means to control exposures. General room ventilation is adequate unless the process generates dust, mist or fumes. Keep airborne contamination levels below the exposure limits listed above in this section. | |
| Personal Protective Equipn | nent: | Refer to applicable national standards and regulations in the selection and use of personal protective equipment (PPE). | |
| Hands: | | Impervious gloves are recommended if skin contact with drug product is possible and for bulk processing operations. | |

| Safety Data Sheet Clindamycin Phosphate | e Topical Solution USI | P, 1% | |
|--|--|--|---|
| Strength: 1 % | Pack Size: 30 mL 60 mL | NDC 72578-084-02 72578-084-03 | Revision No.: 00 |
| Eyes: | Wear safety glasses or goggles if eye contact is possible. | | |
| Skin: | Impervious protective clothing is recommended if skin contact with drug product is possible and for bulk processing | | |
| Respiratory protection: | If the app exceeded factor suf | licable Occupational Exposure , wear an appropriate respirator ficient to control exposures to | Limit (OEL) is with a protection below the OEL. |

Section 9: Physical and chemical properties

| Physical State | Solution |
|----------------|-----------------------------|
| Odor | Characteristic alcohol odor |
| Color | Colorless |

Section 10: Stability and reactivity

| Stability | Stable at normal conditions |
|----------------------------------|---|
| Conditions to avoid | Keep away from heat, spark, flames and all other sources of Ignition. |
| Hazardous decomposition products | Oxidizing agents, acids, bases. |

Section 11: Toxicological information

General Information: The information included in this section describes the potential hazards of the individual ingredients.

Acute Toxicity: (Species, Route, End Point, Dose)

Clindamycin Phosphate

RatOralLD 501832 mg/kgRatIntravenousLD 50321mg/kgRatIntraperitonealLD 50745mg/kgMouseOralLD 502359mg/kgMouseIntravenousLD 50820mg/kg

Isopropyl alcohol

RatOralLD50> 2000 mg/kgMouseOralLD503600mg/kgRatInhalationLC50-8h16,000ppmRabbitDermalLD5012800mg/kgRatInhalationLC5030mg/L

| Propylene glycol | | | | |
|------------------|------|------|--------|-------|
| Mouse | Oral | LD50 | 22,000 | mg/kg |

Safety Data SheetClindamycin Phosphate Topical Solution USP, 1%Strength: 1 %Pack Size: 30 mLNI

60 mL

NDC 72578-084-02 72578-084-03 Revision No.: 00

Rat Oral LD50 20,000mg/kg Rabbit

Dermal LD50 20,800mg/kg

Acute Toxicity Comments: A greater than symbol (>) indicates that the toxicity endpoint being tested was not achievable at the highest dose used in the test.

Irritation / Sensitization: (Study Type, Species, Severity)

Clindamycin Phosphate

| Eye Irritation | Rabbit | Moderate |
|-----------------|--------|----------|
| Skin Irritation | Rabbit | Mild |

Isopropyl alcohol

| Eye Irritation | Rabbit | Severe |
|-----------------|--------|--------|
| Skin Irritation | Rabbit | Mild |

Propylene glycol

| Skin Irritation | Rabbit | Mild |
|-----------------|--------|------|
| Eye Irritation | Rabbit | Mild |

Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)

Clindamycin Phosphate

| 6 Month(s) | Oral 600 | No effects at maximum |
|------------|----------|-------------------------|
| 6 Month(s) | Oral 600 | Gastrointestinal system |

Isopropyl alcohol

| 20 Week(s) Rat | Inhalation4000 ppm | NOAEL | Liver, Central nervous system |
|----------------|---------------------|--------|-------------------------------|
| 104 Week(s)Rat | Inhalation 5000 ppm | Kidney | |

<u>Carcinogen Status</u>: None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA.

See below

Isopropyl alcohol IARC: Group 3 OSHA: Present

| Safety Data Sheet Clindamycin Phosphate Strength: 1 % | Topical So Pack Size: | lution USP, 1 30 mL 60 mL | % NDC 72578-084-02 72578-084-0 | 2 Revision No.: 00 |
|---|--------------------------|---|---|---|
| Section 12: Ecological info | rmation | | | |
| Environmental Overview: | | Environmenta Releases to th | l properties have not b e environment should | been thoroughly investigated. be avoided. |
| Section 13: Disposal consid | leration | | | |
| Disposal methods: | | Dispose of wa regulations. M provisions mu environmental and implemen and waste disp and environment minimization be utilized to p destructive tec | ste in accordance with fember State specific st be considered. Con and human health has t appropriate technical osal measures to prev ental release. It is reco be practiced. The best prevent environmental hniques for waste and | a all applicable laws and and Community specific sidering the relevant known zards of the material, review l and procedural waste water ent occupational exposure ommended that waste t available technology should releases. This may include wastewater. |

Section 14: Transport information

The following refers to all categories of classifications unless specified below.

This material is regulated for transportation as a hazardous material/dangerous good.

| Proper shipping name: | Flammable liquid, n.o.s. (contains isopropanol) |
|------------------------------|---|
| UN / ID No: | UN1993 |
| Hazard class: | 3 |
| Packing group: | III |

Section 15: Regulatory information

Generic Medicine. NDC no- 72578-084-02 (30 mL) and 72578-084-03 (60 mL)

Section 16: Other information

None

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product

Date of issue: 29/10/20

Supersedes edition: N/A