SAFETY DATA SHEET

SermeTel W / W (FX-2)

Section 1. Identification

GHS product identifier : SermeTel W / W (FX-2)

Product code : SermeTel W / W (FX-2)

Other means of identification : STW-BK

Product type : Liquid.

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

Identified uses
Industrial application of coatings and inks by spraying

Supplier's details : Praxair Surface Technologies, Inc.
1555 Main Street
Indianapolis, IN 46224
USA
317-240-2650

Emergency telephone number (with hours of operation) : 317-240-2332 7:00am - 3:30pm ET Mon-Fri
Chemtrec: 1-800-424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (dermal) - Category 3
ACUTE TOXICITY (inhalation) - Category 4
CARCINOGENICITY - Category 1A

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Toxic in contact with skin.
Harmful if swallowed or if inhaled.
May cause cancer.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response : IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN: Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell.

Storage : Store locked up.

Section 2. Hazards identification

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Other means of identification : STW-BK

CAS number/other identifiers

CAS number : Not available.

Product code : SermeTel W / W (FX-2)

Ingredient name	%	CAS number
SermeTel W / W (FX-2)	100	-
water	35 - 45	7732-18-5
Aluminium powder (stabilized)	20 - 40	7429-90-5
Phosphoric acid, solution	10 - 20	7664-38-2
chromium (VI) trioxide	<5	1333-82-0
chromium (III) hydroxide	<1	1308-14-1

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Section 4. First aid measures

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Harmful if inhaled.

Skin contact : Toxic in contact with skin.

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
phosphorus oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Conditions for safe storage : Store at 65 - 77°F (18.3 - 25.0°C)

Store in original containers.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
SermeTel W / W (FX-2)	None.
water	None.
Aluminium powder (stabilized)	**OSHA PEL 1989 (United States, 3/1989).** TWA: 15 mg/m³, (as Al) 8 hours. Form: Dust TWA: 5 mg/m³, (as Al) 8 hours. Form: Pyrophoric TWA: 5 mg/m³, (as Al) 8 hours. Form: Respirable fraction TWA: 5 mg/m³, (as Al) 8 hours. Form: Welding fume **ACGIH TLV (United States, 3/2016).**

Section 8. Exposure controls/personal protection

	TWA: 1 mg/m³ 8 hours. Form: Respirable fraction **NIOSH REL (United States, 10/2013).** TWA: 5 mg/m³ 10 hours. Form: Respirable fraction TWA: 10 mg/m³ 10 hours. Form: Total **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³, (as Al) 8 hours. Form: Respirable fraction TWA: 15 mg/m³, (as Al) 8 hours. Form: Total dust
Phosphoric acid, solution	**ACGIH TLV (United States, 3/2016).** TWA: 1 mg/m³ 8 hours. STEL: 3 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 1 mg/m³ 8 hours. STEL: 3 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 1 mg/m³ 10 hours. STEL: 3 mg/m³ 15 minutes. **OSHA PEL (United States, 6/2016).** TWA: 1 mg/m³ 8 hours.
chromium (VI) trioxide	**ACGIH TLV (United States, 3/2016).** TWA: 0.05 mg/m³, (measured as Cr) 8 hours. **OSHA PEL 1989 (United States, 3/1989).** CEIL: 0.1 mg/m³, (as CrO3) **OSHA PEL Z2 (United States, 2/2013).** CEIL: 1 mg/10m³ **OSHA PEL (United States, 6/2016).** TWA: 0.005 mg/m³, (as Cr) 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 0.0002 mg/m³, (as CR) 8 hours.
chromium (III) hydroxide	**ACGIH TLV (United States, 3/2016).** TWA: 0.5 mg/m³, (measured as Cr) 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 0.5 mg/m³, (as Cr) 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 0.5 mg/m³, (as CR) 8 hours. **OSHA PEL (United States, 6/2016).** TWA: 0.5 mg/m³, (as Cr) 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Section 8. Exposure controls/personal protection

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Gray. Green.

Odor : Odorless.

Odor threshold : Not available.

pH : 2 to 3

Melting point : Not available.

Boiling point : 104°C (219.2°F)

Flash point : Not available.

Evaporation rate : 1 (water = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapor pressure : 3.2 kPa (23.7 mm Hg) [room temperature]

Vapor density : 0.7 [Air = 1]

Relative density : 1.6 to 1.65

Solubility : Insoluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : 926.67°C (1700°F)

Decomposition temperature : Not available.

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

VOC content : 0 lbs/gal (0 g/l)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
SermeTel W / W (FX-2)	LC50 Inhalation Vapor	Rat	>10 mg/l	4 hours
	LD50 Dermal	Rabbit	>200 mg/kg	-
	LD50 Oral	Rat	>500 mg/kg	-
Phosphoric acid, solution	LD50 Oral	Rat	1.25 g/kg	-
chromium (VI) trioxide	LD50 Oral	Rat	80 mg/kg	-

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
chromium (VI) trioxide	+	1	Known to be a human carcinogen.
chromium (III) hydroxide	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on the likely routes of exposure : Routes of entry anticipated: Dermal.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Harmful if inhaled.

Skin contact : Toxic in contact with skin.

Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Aluminium powder (stabilized)	Acute LC50 38000 µg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 120 µg/l Fresh water	Fish - Oncorhynchus mykiss - Embryo	96 hours
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
Phosphoric acid, solution	Acute EC50 105 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 60 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
chromium (VI) trioxide	Acute IC50 1.54 mg/l Fresh water	Algae - Dictyosphaerium chlorelloides - Exponential growth phase	72 hours

Section 12. Ecological information

	Acute LC50 145 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 162 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 21000 µg/l Fresh water	Fish - Colisa fasciata - Adult	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
water	-1.38	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	3264	3264	3264	3264	3264	3264
UN proper shipping name	Corrosive Liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)	Corrosive Liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)	Corrosive Liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)	Corrosive Liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)	Corrosive Liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)	Corrosive Liquid, acidic, inorganic, n.o.s. (Phosphoric Acid)
Transport hazard class(es)	8 	8 	8 	8 	8 	8 
Packing group	III	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.	No.

Section 14. Transport information

Additional information	**Reportable quantity** 33333.3 lbs / 15133.3 kg [2460.2 gal / 9312.8 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 40-2.42 (Class 8).	-	-	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 6 final risk management**: chromium (VI) trioxide
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
TSCA 12(b) annual export notification: chromium (VI) trioxide
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: chromium (VI) trioxide; chromium (III) hydroxide
Clean Water Act (CWA) 311: Phosphoric acid, solution

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard
Delayed (chronic) health hazard

Section 15. Regulatory information

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
SermeTel W / W (FX-2) Phosphoric acid, solution chromium (VI) trioxide	100 10 - 20 <5	No. No. No.	No. No. No.	No. No. No.	Yes. Yes. Yes.	Yes. No. Yes.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Aluminium powder (stabilized) chromium (VI) trioxide	7429-90-5 1333-82-0	20 - 40 <5
Supplier notification	Aluminium powder (stabilized) chromium (VI) trioxide	7429-90-5 1333-82-0	20 - 40 <5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: ALUMINUM; PHOSPHORIC ACID; CHROMIUM ANHYDRIDE; SINTERED CHROMIUM TRIOXIDE

New York : The following components are listed: Phosphoric acid

New Jersey : The following components are listed: ALUMINUM; PHOSPHORIC ACID; CHROMIC TRIOXIDE; CHROMIC ANHYDRIDE

Pennsylvania : The following components are listed: ALUMINUM; PHOSPHORIC ACID; CHROMIUM OXIDE

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
chromium (VI) trioxide	Yes.	Yes.	Yes.	-

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Section 15. Regulatory information

Japan : **Japan inventory (ENCS)**: Not determined.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (oral) - Category 4	On basis of test data
ACUTE TOXICITY (dermal) - Category 3	On basis of test data
ACUTE TOXICITY (inhalation) - Category 4	On basis of test data
CARCINOGENICITY - Category 1A	Calculation method

History

Date of printing : 11/10/2017

Date of issue/Date of revision : 11/10/2017

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.