

SAFETY DATA SHEET

Bona®

Bona® Coloration Additive

Section 1. Identification

GHS product identifier : Bona® Coloration Additive
Product code : H330 -0
Other means of identification : Not available.
Product type : Liquid.

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

Identified uses

Professional application of coatings and inks by brush or roller

Supplier's details : BonaKemi USA, Inc. (dba Bona US)
24 Inverness Place E. Suite #100
Englewood, CO 80112
(303) 371-1411

Emergency telephone number (with hours of operation) : 24 Hour Emergency Number: call CHEMTREC: US - 1-800-424-9300, International - 1-703-527-3887

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 : SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 44%

GHS label elements

Hazard pictograms



Signal word : Warning

Hazard statements : Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.

Precautionary statements

Prevention : Wear protective gloves: > 8 hours (breakthrough time): nitrile rubber. Wear eye or face protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Section 2. Hazards identification

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up.

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 : Mixture

Other means of identification : Not available.

| Ingredient name | % | CAS number |
|--|-----------|-------------|
| propylene carbonate | ≥25 - <50 | 108-32-7 |
| Hydrophilic, aliphatic polyisocyanate | ≥25 - ≤50 | 160994-68-3 |
| Hexane, 1,6-diisocyanato-, homopolymer | ≥10 - ≤25 | 28182-81-2 |

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

- 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 adverse health effects persist or are severe. 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

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : May cause respiratory irritation.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

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

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen 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. Avoid breathing 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".
- 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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.

Section 7. Handling and storage

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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|---|
| propylene carbonate | None. |
| Hydrophilic, aliphatic polyisocyanate | None. |
| Hexane, 1,6-diisocyanato-, homopolymer | ACGIH TLV (United States). TWA: 0,034 mg/m ³ 8 hours. TWA: 0,005 ppm 8 hours. |

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, 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. Contaminated work clothing should not be allowed out of the workplace. 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 when a risk assessment indicates this is necessary 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: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. 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. > 8 hours (breakthrough time): nitrile rubber

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.

Section 8. Exposure controls/personal protection

- 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.
- Personal protective equipment (Pictograms)** :



Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Colorless.
- Odor** : Sweetish. [Slight]
- Odor threshold** : Not applicable.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Closed cup: >120°C (>248°F)
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Not applicable.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : 1,09
- Solubility** : Insoluble in the following materials: cold water and hot water.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not applicable.
- Viscosity** : Not available.
- Flow time (ISO 2431)** : Not available.

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.

Section 10. Stability and reactivity

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 |
|--|---------------------------------|-----------------------|-------------------------|----------|
| propylene carbonate | LD50 Dermal | Rabbit | >3000 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| Hydrophilic, aliphatic polyisocyanate | LD50 Oral | Rat | >2000 mg/kg | - |
| Hexane, 1,6-diisocyanato-, homopolymer | LC50 Inhalation Dusts and mists | Rat | 18500 mg/m ³ | 1 hours |
| | LD50 Dermal | Rabbit - Male, Female | >2000 mg/kg | - |
| | LD50 Dermal | Rat - Male, Female | >2000 mg/kg | - |
| | LD50 Oral | Rat - Female | 5000 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|--------------------------|---------|-------|--------------------------------------|-------------|
| propylene carbonate | Eyes - Moderate irritant | Rabbit | - | 60 milligrams | - |
| | Skin - Moderate irritant | Human | - | 72 hours 100 milligrams Intermittent | - |
| | Skin - Moderate irritant | Rabbit | - | 500 milligrams | - |
| Hexane, 1,6-diisocyanato-, homopolymer | Skin - Mild irritant | Rabbit | - | - | - |
| | Eyes - Moderate irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 500 milligrams | - |

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|--|-------------------|------------|-------------|
| Hydrophilic, aliphatic polyisocyanate | skin | Guinea pig | Sensitizing |
| Hexane, 1,6-diisocyanato-, homopolymer | skin | Mouse | Sensitizing |
| | skin | Guinea pig | Sensitizing |

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Section 11. Toxicological information

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|------------|-------------------|------------------------------|
| Hydrophilic, aliphatic polyisocyanate | Category 3 | Not applicable. | Respiratory tract irritation |
| Hexane, 1,6-diisocyanato-, homopolymer | Category 3 | Not applicable. | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : May cause respiratory irritation.
Skin contact : Causes skin irritation. May cause an allergic skin reaction.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing

Skin contact : Adverse symptoms may include the following:
 irritation
 redness

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.

Section 11. Toxicological information

| | |
|------------------------------|---|
| General | : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. |
| Carcinogenicity | : No known significant effects or critical hazards. |
| 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

| Route | ATE value |
|------------------------------|---------------|
| Dermal | 5681,82 mg/kg |
| Inhalation (vapors) | 26,22 mg/l |
| Inhalation (dusts and mists) | 33,07 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|-----------------------|-----------------------|----------|
| propylene carbonate | EC50 >500 mg/l | Aquatic plants | 72 hours |
| | Acute EC50 >500 mg/l | Daphnia | 48 hours |
| | Acute LC50 5300 mg/l | Fish - Leuciscus Idus | 96 hours |
| Hydrophilic, aliphatic polyisocyanate | Acute EC50 >100 mg/l | Daphnia | 48 hours |
| | Acute IC50 >100 mg/l | Algae | 72 hours |
| Hexane, 1,6-diisocyanato-, homopolymer | Acute LC50 28,3 mg/l | Fish | 96 hours |
| | Acute EC50 >1000 mg/l | Algae | 72 hours |
| | Acute EC50 >100 mg/l | Daphnia | 48 hours |
| | Acute LC50 >100 mg/l | Fish | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|--|-------------------|------------|------------------|
| propylene carbonate | - | - | Readily |
| Hydrophilic, aliphatic polyisocyanate | - | - | Not readily |
| Hexane, 1,6-diisocyanato-, homopolymer | - | - | Not readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|-------|-----------|
| propylene carbonate | -0,41 | - | low |
| Hexane, 1,6-diisocyanato-, homopolymer | 5,54 | 367,7 | low |

Mobility in soil

Section 12. Ecological information

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 | Not regulated. | Not regulated. | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | - | - | - | - | - | - |
| Transport hazard class(es) | - | - | - | - | - | - |
| Packing group | - | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. | No. |
| Additional information | - | - | - | - | - | - |

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 8(a) CDR Exempt/Partial exemption: Not determined
 TSCA 8(c) calls for record of SAR: hexamethylene-di-isocyanate
 United States inventory (TSCA 8b): All components are listed or exempted.
 Clean Water Act (CWA) 307: hexamethylene-di-isocyanate

Clean Air Act Section 112 : Listed

(b) Hazardous Air Pollutants (HAPs)

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

Composition/information on ingredients

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|--|-----------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| propylene carbonate | ≥25 - <50 | No. | No. | No. | Yes. | No. |
| Hydrophilic, aliphatic polyisocyanate | ≥25 - ≤50 | No. | No. | No. | Yes. | No. |
| Hexane, 1,6-diisocyanato-, homopolymer | ≥10 - ≤25 | No. | No. | No. | Yes. | No. |

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Section 15. Regulatory information

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 | : Not determined. |
| Canada | : At least one component is not listed in DSL but all such components are listed in NDSL. |
| China | : Not determined. |
| Europe | : Not determined. |
| Japan | : Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : Not determined. |
| Malaysia | : Not determined |
| New Zealand | : All components are listed or exempted. |
| Philippines | : Not determined. |
| Republic of Korea | : All components are listed or exempted. |
| Taiwan | : All components are listed or exempted. |
| Turkey | : Not determined. |

Section 16. Other information

Hazardous Material Information System (U.S.A.)

| | |
|------------------|---|
| Health | 0 |
| Flammability | 0 |
| Physical hazards | 0 |
| | |

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)



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Section 16. Other information

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

| Classification | Justification |
|---|--|
| SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method Calculation method Calculation method Calculation method |

History

Date of printing : 2021-11-18
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Date of previous issue : No previous validation
Version : 1

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.

☑ Indicates information that has changed from previously issued version.

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.