

Section 1. Identification

GHS product identifier : Noble Chemical QuikPacks Pot & Pan Detergent
Other means of identification : 147QPPOTPAN
Product type : Solid.

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

Product use : Detergent for the manual washing of institutional and commercial cookware, dishes, glasses, and utensils.
Area of application : Industrial applications, Professional applications.


Product dilution information : 1/2 oz. (14 g) per 5 gallons (19 L) of water or 1 oz. (28 g) per 5 gallons (19 L) of water

Supplier/Manufacturer : **Noble Chemical Inc.**
 2205 Old Philadelphia Pike
 Lancaster, PA 17602
 Phone: 888-256-6400
 Website: www.noblechemical.com

e-mail address of person responsible for this SDS : help@noblechemical.com

Emergency telephone number (with hours of operation) : CHEM-TEL : 800-255-3924

Section 2. Hazards identification

	Product as SOLD	Product AT USE DILUTION
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	Not classified.
Classification of the substance or mixture	: ACUTE TOXICITY: ORAL - Category 4 SERIOUS EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] - Category 3 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 36%	Not classified.
GHS Label elements		
Hazard pictograms	: 	None
Signal word	: Warning	None
Hazard statements	: Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation.	The mixture does not meet the criteria for classification.

Section 2. Hazards identification

Precautionary statements

General	: Keep out of the reach of children.	Keep out of the reach of children.
Prevention	: Wear protective gloves. Wear eye or face protection. Use only outdoors or in a well ventilated area. Avoid breathing dust. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.	Observe good industrial hygiene practices.
Response	: IF INHALED: Remove victim to fresh air and keep at rest in a position 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: Wash with plenty of water. If skin irritation occurs and persists: 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.	No storage precautions necessary.
Disposal	: Dispose of waste and residues in accordance with local authority requirements.	Dispose of solution down the drain to municipal sewer.
Hazards not otherwise classified	: None known.	None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: 147QPPOTPAN

CAS number/other identifiers

CAS number	: Not applicable.
Product code	: Not available.

Ingredient name	Other names	%	CAS number
sodium dodecyl benzene sulfonate	sodium dodecyl benzene sulfonate	25-35%	25155-30-0
Sodium chloride	Sodium chloride	10-20%	7647-14-5
sodium carbonate	sodium carbonate	45-65%	497-19-8
Zeolite	Zeolite	5-10%	1318-02-1
Amorphous silicon dioxide hydrate	Amorphous silicon dioxide hydrate	<2%	63231-67-4

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 and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

	Product as SOLD	Product AT USE DILUTION
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.	No known effect after eye contact. Rinse with water for a few minutes. If irritation persists, 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.	No special measures required. Treat symptomatically.
Skin contact	: Wash with plenty of water. If skin irritation occurs and persists, get medical attention	No known effect after skin contact.
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.	Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: No known effects.
Ingestion	: Harmful if swallowed. Irritating to mouth, throat and stomach.

No known effects.

Section 4. First aid measures

Over-exposure signs/symptoms

- Product as SOLD**
- 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.

Product AT USE DILUTION
No known adverse effects.

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.

Treat symptomatically. No special measures required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.
- Specific hazards arising from the chemical** : Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur 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 and precautions for firefighters** : Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	<p>Product as SOLD</p> <p>: 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.</p>	<p>Product AT USE DILUTION</p> <p>Use personal protective equipment as required. Avoid contact of large amounts of spilled material and run off with soil and surface waterways. Use a water rinse for final clean-up.</p>
For emergency responders	<p>: 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 nonemergency personnel".</p>	<p>Discharge collected material per Section 13 of the SDS.</p>
Environmental precautions	<p>: 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). Water polluting material. May be harmful to the environment if released in large quantities.</p>	<p>Avoid discharge into storm water drains, water courses, or onto the ground.</p>

Methods and materials for containment and cleaning up

Small spill	<p>Product as SOLD</p> <p>: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.</p>	<p>Product AT USE DILUTION</p> <p>Small Spills: Wipe up with absorbent material.</p>
Large spill	<p>: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p>	<p>Large Spills: Flush area with water. Prevent entry into waterways. Discharge collected material per Section 13 of the SDS.</p>

Section 7. Handling and storage

Precautions for safe handling

	Product as SOLD
Protective measures	: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. 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. Do not mix with other chemicals or cleaning agents.
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. Keep from freezing.

Product AT USE DILUTION

Wash hands thoroughly after handling.

Keep out of reach of children.

Section 8. Exposure controls/personal protection

Control parameters

	Product as SOLD
Occupational exposure limits	: No exposure limits noted for ingredient(s).
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.

Product AT USE DILUTION

Not applicable.

None required.

Section 8. Exposure controls/personal protection

		Product as SOLD	Product AT USE DILUTION
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, such as personal protective equipment			
		Product as SOLD	Product AT USE DILUTION
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 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: safety glasses with side shields.	No protective equipment is needed under normal conditions.
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. Recommended: Neoprene gloves. Rubber gloves.	No protective equipment is needed under normal conditions.
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

	Product as SOLD	Product AT USE DILUTION
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.	No protective equipment is needed under normal conditions.
Respiratory protection	: Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.	No protective equipment is needed under normal conditions.

Section 9. Physical and chemical properties

Appearance		
	Product as SOLD	Product AT USE DILUTION
Physical state	: Solid. [Granular solid.]	Liquid
Color	: Pink.	Colorless
Odor	: Lemon fragrance.	Slight lemon fragrance
Odor threshold	: Not available.	Not available.
pH	: Not applicable.	9.0-10.0
Melting point	: Not available.	Not available.
Boiling point	: Not applicable.	212 °F (100 °C)
Flash point	: >93.333°C (>200°F)	>93.333°C (>200°F)
Evaporation rate	: Not applicable.	Not available.
Flammability (solid, gas)	: Not applicable.	Not applicable.
Lower and upper explosive (flammable) limits	: Not available.	Not available.
Vapor pressure	: Not available.	<0.013 kPa (<0.1 mm Hg)
Vapor density	: Not available.	Not available.
Relative density	: 56.9 lbs/ft ³ [Bulk density]	1.00
Solubility	: Easily soluble in the following materials: cold water and hot water.	Complete
Solubility in water	: Not available.	
Partition coefficient: n-octanol/water	: Not available.	
Auto-ignition temperature	: Not available.	Not available.
Decomposition temperature	: Not available.	Not available.
SADT	: <100 mPa·s (<100 cP)	<100 mPa·s (<100 cP)
Viscosity	: Not available.	
SADT	: Not available.	

Section 10. Stability and reactivity

Product as SOLD

- 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.
Under normal conditions of storage and use, hazardous polymerization will not occur.
- Conditions to avoid** : Keep from freezing. Keep away from extreme heat.
- 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** : Calculated Oral LD50 926 mg/kg

Product/ingredient name	Result	Species	Dose	Exposure
Sodium dodecylbenzenesulfonate	LD50 Oral	Rat	438 mg/kg	-
sodium carbonate	LD50 Oral	Rat	4090 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Sodium dodecylbenzenesulfonate	Eyes - Severe irritant	Rabbit	-	24 hours 250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	1 Percent	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
sodium carbonate	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Severe irritant	Rabbit	-	50 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Product as SOLD

- Sensitization** : Not available.
- Mutagenicity** : Not available.
- Carcinogenicity** : Not available.
- Reproductive toxicity** : Not available.
- Teratogenicity** : Not available.

Product AT USE DILUTION

- Not available.
- Not available.
- Not available.
- Not available.
- Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Sodium dodecylbenzenesulfonate	Category 3	Not applicable.	Respiratory tract irritation
citric acid	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** : Routes of entry anticipated:
Oral, Dermal, Inhalation.

Not available.

No known significant effects or critical hazards.
Not available.

Section 11. Toxicological information

Potential acute health effects

	Product as SOLD
Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation.
Ingestion	: Harmful if swallowed. Irritating to mouth, throat and stomach.

Product AT USE DILUTION

Not available.
Not available.
Not available.
Not available.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: 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.

No known significant effects or critical hazards.

Not available.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

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.

Not available.
Not available.

Long term exposure

Potential immediate effects	: Not available.
Potential delayed effects	: Not available.

Not available.
Not available.

Potential chronic health effects

General	: No known significant effects or critical hazards.
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.

No known significant effects or critical hazards.
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No known significant effects or critical hazards.

Section 11. Toxicological information

Product as SOLD

Product AT USE DILUTION

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value	Product AT USE DILUTION
Oral	926 mg/kg	Non-toxic at use dilution.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
sodium dodecylbenzenesulfonate	Acute EC50 29000 µg/l Fresh water	Algae - Chlorella pyrenoidosa - Exponential growth phase	96 hours
	Acute EC50 7.81 mg/l Fresh water	Crustaceans – Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 5.88 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 112.4 mg/l	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
sodium carbonate	Acute EC50 242000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute LC50 176000 µg/l Fresh water	Crustaceans - Amphipoda	48 hours
	Acute LC50 265000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 300000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours

Persistence and degradability : No data is available on the degradability of this product.

Bioaccumulative potential : No data available.

Product/ingredient name	LogP _{ow}	BCF	Potential
sodium dodecylbenzenesulfonate	1.96	-	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

Product as SOLD

Product AT USE DILUTION

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.

Diluted product can be flushed to sanitary sewer. Discard empty container in trash or offer for recycling where facilities exist..

Section 13. Disposal considerations

Product as SOLD

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.

Product AT USE DILUTION

Section 14. Transport information

Product as SOLD

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	Cleaning Compounds, NOI, powder	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	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 73/78 and the IBC Code : Not available.

Product AT USE DILUTION

Not intended for transport

Section 15. Regulatory information

U.S. Federal regulations

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not regulated.

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.

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 311: sodium dodecylbenzenesulfonate

Product as SOLD

Product AT USE DILUTION

Not regulated.

Not listed.

Not listed.

Not listed.

Not listed.

Section 15. Regulatory information

Product as SOLD	Product AT USE DILUTION
<p>Superfund Amendments and Reauthorization Act of 1986 (SARA)</p> <p>Hazard categories : Immediate Hazard - No Delayed Hazard - No Fire Hazard – No Pressure Hazard - No Reactivity Hazard - No</p> <p>SARA 302 Extremely hazardous substance : No</p> <p>SARA 304 RQ : Not applicable</p> <p>SARA 311/312 : Immediate (acute) health hazard</p>	<p>Non-hazardous.</p> <p>Not listed.</p> <p>Not applicable</p> <p>Non-hazardous at use-dilution</p>

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
sodium dodecylbenzenesulfonate	25-35	Yes.	No.	No.	Yes.	No.
sodium carbonate	45-65	No.	No.	No.	Yes.	No.

Product as SOLD	Product AT USE DILUTION
<p>SARA 313 : Not applicable</p>	<p>Not applicable.</p>
<p>State regulations</p> <p>Massachusetts : The following components are listed: SODIUM DODECYLBENZENE SULFONATE; SODIUM SULFATE</p> <p>New York : The following components are listed: Sodium dodecylbenzene sulfonate; Dodecylbenzene sulfonate</p> <p>New Jersey : The following components are listed: SODIUM DODECYLBENZENE SULFONATE; BENZENESULFONIC ACID, DODECYL-, SODIUM SALT</p> <p>Pennsylvania : The following components are listed: BENZENESULFONIC ACID, DODECYL-,SODIUM SALT; SODIUM SULFATE</p> <p>California Prop. 65 : None of the components are listed.</p>	<p>Not regulated.</p> <p>Not regulated.</p> <p>Not regulated.</p> <p>Not regulated.</p>

Country(s) or region	Inventory name	On inventory (yes/no)*	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory		Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

Section 16. Other information

SDS File Name : Noble Chemical QuikPacks Pot & Pan Detergent SDS

Design for the Environment Certified : Yes

History

Date of issue/Date of revision : 09/12/2019

Date of previous issue : 11/03/2017

Version : 1

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labeling 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 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

References : HCS (U.S.A.)- Hazard Communication Standard
International transport regulations

 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.