Material Safety Data Sheet

Naturage 1 Exothermic Spa Conditioning Perm - Waving Lotion

1. Product and company identification

Product name Naturage 1 Exothermic Spa Conditioning Perm - Waving Lotion

Manufacturer Zotos International, INC

> 100 Tokeneke Road, Darien, CT 06820 www.zotos.com

Validation date : 4/3/2013.

In case of emergency (800) 584-8038 [24 Hours]

Telephone number (203) 656-7859 [8:30 a.m. - 5:00 p.m.]

Contact: CHEMTREC 1-800-424-9300 [US/Canada 24 Hours] **Transportation Emergency**

Product type : Liquid.

2. Hazards identification

Emergency overview

: HARMFUL IF SWALLOWED. CAUSES EYE IRRITATION. MAY CAUSE SKIN **Hazard statements**

IRRITATION.

Precautionary measures : Do not breathe vapor or mist. Do not ingest. Do not eat, drink or smoke when using this

product. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Potential acute health effects

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may

be delayed following exposure.

Ingestion Toxic if swallowed.

Skin Moderately irritating to the skin.

Eyes : Severely irritating to eyes. Risk of serious damage to eyes.

Potential chronic health effects

Chronic effects : Contains material that may cause target organ damage, based on animal data.

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.

Over-exposure signs/symptoms

Inhalation : No specific data. Ingestion : No specific data.

Skin : Adverse symptoms may include the following:

> irritation redness

: Adverse symptoms may include the following: Eyes

pain or irritation

watering redness

Medical conditions

aggravated by overexposure

: Pre-existing disorders involving any target organs mentioned in this MSDS as being at

risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

4161A 1/12

3. Composition/information on ingredients

United States

Name	CAS number	%
hydrogen peroxide	7722-84-1	2.40
2-aminoethanol	141-43-5	1.90

Canada

Name	CAS number	%
1	5421-46-5	9.24
hydrogen peroxide	7722-84-1	2.40
2-aminoethanol	141-43-5	1.90

Mexico

					Classification			ation
Name	CAS number	UN number	%	IDLH	H	F	R	Special
2-aminoethanol	141-43-5	Not available.	1.90	30 ppm	2	2	0	-
hydrogen peroxide	7722-84-1	UN3287	2.40	75 ppm	2	0	0	-

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.

4. First aid measures

Eye contact

: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact

: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion

: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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.

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.

5. Fire-fighting measures

Extinguishing media

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

Suitable

: Use an extinguishing agent suitable for the surrounding fire. : None known.

Not suitable

: Promptly isolate the scene by removing all persons from the vicinity of the incident if

Special exposure hazards

there is a fire. No action shall be taken involving any personal risk or without suitable training.

> 4161A 2/12

5. Fire-fighting measures

Hazardous thermal decomposition products

: Decomposition products may include the following materials: carbon dioxide

carbon monoxide nitrogen oxides sulfur oxides

halogenated compounds

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.

6. Accidental release measures

Personal precautions

: 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 (see Section 8).

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 for 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.

7. Handling and storage

Handling

: Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

Storage

: 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. 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.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits

4161A **3/12**

8. Exposure controls/personal protection

hydrogen peroxide	ACGIH TLV (United States, 3/2012).
Trydrogen peroxide	TWA: 1 ppm 8 hour(s).
	TWA: 1.4 mg/m³ 8 hour(s).
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 1 ppm 8 hour(s).
	TWA: 1 ppm o moun(s). TWA: 1.4 mg/m³ 8 hour(s).
	NIOSH REL (United States, 6/2009).
	TWA: 1 ppm 10 hour(s).
	TWA: 1.4 mg/m³ 10 hour(s).
	OSHA PEL (United States, 6/2010).
	TWA: 1 ppm 8 hour(s).
	TWA: 1.4 mg/m ³ 8 hour(s).
2-aminoethanol	ACGIH TLV (United States, 3/2012).
2 diffillocation	TWA: 3 ppm 8 hour(s).
	TWA: 7.5 mg/m ³ 8 hour(s).
	STEL: 6 ppm 15 minute(s).
	STEL: 15 mg/m³ 15 minute(s).
	OSHA PEL 1989 (United States, 3/1989).
	TWA: 3 ppm 8 hour(s).
	TWA: 8 mg/m ³ 8 hour(s).
	STEL: 6 ppm 15 minute(s).
	STEL: 15 mg/m³ 15 minute(s).
	NIOSH REL (United States, 6/2009).
	TWA: 3 ppm 10 hour(s).
	TWA: 8 mg/m³ 10 hour(s).
	STEL: 6 ppm 15 minute(s).
	STEL: 15 mg/m³ 15 minute(s).
	OSHA PEL (United States, 6/2010).
	TWA: 3 ppm 8 hour(s).
	TWA: 6 mg/m³ 8 hour(s).

Canada

Occupational exposu	re limits	TWA	(8 hours)	STEL	(15 mins	s)	Ceilin	ıg		
Ingredient	List name	ppm	mg/m³	Other	ppm	mg/m³	Other	ppm	mg/m³	Other	Notations
2-aminoethanol	US ACGIH 3/2012	3	7.5	-	6	15	-	-	-	-	
	AB 4/2009	3	7.5	-	6	15	-	-	-	_	[3]
	BC 9/2011	3	-	-	6	-	-	-	-	_	
	ON 7/2010	3	7.5	-	6	15	-	-	-	_	
	QC 9/2011	3	7.5	-	6	15	-	-	-	_	
hydrogen peroxide	US ACGIH 3/2012	1	1.4	-	-	-	-	-	-	_	
AB 4/200 BC 9/201	AB 4/2009	1	1.4	-	-	-	-	-	-	-	[3]
	BC 9/2011	1	-	-	-	-	-	-	-	-	
	ON 7/2010	1	1.4	-	-	-	-	-	-	-	
	QC 9/2011	1	1.4	-	-	-	-	-	-	-	

[3]Skin sensitization

Mexico

Occupational exposure limits

Ingredient	Exposure limits
hydrogen peroxide	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 1 ppm 8 hour(s). LMPE-PPT: 1.5 mg/m³ 8 hour(s). LMPE-CT: 3 mg/m³ 15 minute(s). LMPE-CT: 2 ppm 15 minute(s).
2-aminoethanol	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 3 ppm 8 hour(s). LMPE-PPT: 8 mg/m³ 8 hour(s). LMPE-CT: 15 mg/m³ 15 minute(s). LMPE-CT: 6 ppm 15 minute(s).

Consult local authorities for acceptable exposure limits.

4161A **4/12**

8. Exposure controls/personal protection

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Engineering measures

: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

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.

Personal protection

Respiratory

: Use a properly fitted, air-purifying or air-fed 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.

Hands

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.

Eyes

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 or dusts.

Skin

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.

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.

Other protection : Not available.

9. Physical and chemical properties

Physical state : Liquid. pН : 9 **Relative density** : 1.075

10. Stability and reactivity

Chemical stability

products

: The product is stable.

Conditions to avoid

: No specific data.

Incompatible materials Hazardous decomposition No specific data.

Possibility of hazardous

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

reactions

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

4161A 5/12

11. Toxicological information

United States

Acute toxicity

Product/ingredient name	Result	Dose	Exposure
2-aminoethanol		1720 mg/kg	-
hydrogen peroxide		2 g/m3	4 hours
	LD50 Dermal	3 g/kg	-
	LD50 Oral	376 mg/kg	-

Conclusion/Summary

: Not available.

Chronic toxicity

Conclusion/Summary: Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
2-aminoethanol	Eyes - Severe irritant	-	250 Micrograms	-
	Skin - Moderate irritant	-	505 milligrams	-
hydrogen peroxide	Eyes - Severe irritant	-	1 milligrams	-

Conclusion/Summary

: Not available.

Sensitizer

Conclusion/Summary : N

: Not available.

Carcinogenicity

Conclusion/Summary: No carcinogenic effect.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
hydrogen peroxide	A3	3	-	-	-	-

Mutagenicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary: Not available.

Canada

Acute toxicity

Product/ingredient name	Result	Dose	Exposure
2-aminoethanol hydrogen peroxide	LC50 Inhalation Vapor LD50 Dermal	1720 mg/kg 2 g/m3 3 g/kg 376 mg/kg	4 hours

Conclusion/Summary

: Not available.

Chronic toxicity

Conclusion/Summary: Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
2-aminoethanol	Eyes - Severe irritant	-	250	-
	Skin - Moderate irritant	-	Micrograms 505 milligrams	-
hydrogen peroxide	Eyes - Severe irritant	-	1 milligrams	-

4161A **6/12**

11. Toxicological information

Conclusion/Summary

: Not available.

Sensitizer

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
hydrogen peroxide	A3	3	-	-	-	-

Mutagenicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

Mexico

Acute toxicity

Product/ingredient name	Result	Dose	Exposure
2-aminoethanol	LD50 Oral	1720 mg/kg	-
hydrogen peroxide	LC50 Inhalation Vapor	2 g/m3	4 hours
	LD50 Dermal	3 g/kg	-
	LD50 Oral	376 mg/kg	-

Conclusion/Summary

: Not available.

Chronic toxicity

Conclusion/Summary

: Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
2-aminoethanol	Eyes - Severe irritant	-	250 Micrograms	-
	Skin - Moderate irritant	_	505 milligrams	-
hydrogen peroxide	Eyes - Severe irritant	-	1 milligrams	-

Conclusion/Summary

: Not available.

<u>Sensitizer</u>

Conclusion/Summary

: Not available.

Carcinogenicity

Conclusion/Summary

: Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
hydrogen peroxide	A3	3	-	-	-	-

Mutagenicity

Conclusion/Summary

: Not available.

Teratogenicity

Conclusion/Summary

: Not available.

Reproductive toxicity

Conclusion/Summary

: Not available.

4161A **7/12**

12. Ecological information

THE FOLLOWING DATA IN THIS SECTION IS SOURCED FROM PUBLICLY AVAILABLE DATABASES AND NOT THE REPRESENTATION OF ANY DATA COLLECTED BY ZOTOS INTERNATIONAL OR ITS AFFILIATES.

Ecotoxicity

: No known significant effects or critical hazards.

United States

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
2-aminoethanol	Acute EC50 80000 ug/L Fresh water	Algae - Isochrysis galbana	96 hours
	Acute LC50 >100000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 150 mg/L Fresh water	Fish - Oncorhynchus mykiss - Yolk-sac fry	96 hours
hydrogen peroxide	Acute EC50 1.2 mg/L Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2320 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 22 ppm Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Conclusion/Summary

Persistence/degradability

Conclusion/Summary

: Not available.

: Not available.

Canada

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
2-aminoethanol	Acute EC50 80000 ug/L Fresh water	Algae - Isochrysis galbana	96 hours
	Acute LC50 >100000 ug/L Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 150 mg/L Fresh water	Fish - Oncorhynchus mykiss - Yolk-sac fry	96 hours
hydrogen peroxide	Acute EC50 1.2 mg/L Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 2320 ug/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 22 ppm Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Conclusion/Summary

: Not available.

Persistence/degradability
Conclusion/Summary

: Not available.

Mexico

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
2-aminoethanol	Acute EC50 80000 ug/L Fresh water Acute LC50 >100000 ug/L Marine water	Algae - Isochrysis galbana Crustaceans - Crangon crangon - Adult	96 hours 48 hours
	Acute LC50 150 mg/L Fresh water	Fish - Oncorhynchus mykiss - Yolk-sac fry	96 hours
hydrogen peroxide	Acute EC50 1.2 mg/L Marine water	Algae - Dunaliella tertiolecta - Exponential growth phase	72 hours
	Acute EC50 5.38 mg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

4161A **8/12**

12. Ecological information

	Acute EC50 2320 ug/L Fresh water	subcapitata Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 22 ppm Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling,	96 hours
oclusion/Summany	Not available	Weanling)	

Conclusion/Summary

: Not available.

Persistence/degradability
Conclusion/Summary

: Not available.

13. Disposal considerations

Waste disposal

: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. 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.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	Not available.	Not available.	Not available.	-		-
TDG Classification	Not available.	Not available.	Not available.	-		-
Mexico Classification	Not available.	Not available.	Not available.	-		-
ADR/RID Class	Not available.	Not available.	Not available.	-		-
IMDG Class	Not available.	Not available.	Not available.	-		-
IATA-DGR Class	Not available.	Not available.	Not available.	-		-

PG*: Packing group

15. Regulatory information

United States

HCS Classification : Toxic material

Irritating material Target organ effects

U.S. Federal regulations : TSCA : Exempt

4161A **9/12**

15. Regulatory information

SARA 302/304/311/312 extremely hazardous substances: hydrogen peroxide; ammonia, anhydrous

SARA 302/304 emergency planning and notification: hydrogen peroxide; ammonia, anhydrous

SARA 302/304/311/312 hazardous chemicals: hydrogen peroxide; 2-aminoethanol; ammonia, anhydrous

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: hydrogen peroxide: Fire hazard, reactive, Immediate (acute) health hazard, Delayed (chronic) health hazard; 2-aminoethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; ammonia, anhydrous: Sudden release of pressure, Immediate (acute) health hazard

Clean Water Act (CWA) 311: disodium hydrogenorthophosphate; ammonia, anhydrous; Phosphoric acid

Clean Air Act (CAA) 112 regulated toxic substances: ammonia, anhydrous

Clean Air Act Section 112(b) Hazardous Air **Pollutants (HAPs)**

: Not 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

State regulations

Massachusetts : The following components are listed: AMMONIA; ETHANOLAMINE; HYDROGEN

PEROXIDE

New York : The following components are listed: Ammonia; Hydrogen peroxide

The following components are listed: AMMONIA; ETHANOLAMINE; ETHANOL, 2-**New Jersey**

AMINO-: HYDROĞEN PEROXIDE

Pennsylvania The following components are listed: AMMONIA; ETHANOL, 2-AMINO-; HYDROGEN

PEROXIDE (CONC > 52 PERCENT)

California Prop. 65

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product is not known to the State of California to cause cancer.

United States inventory

(TSCA 8b)

: Not determined.

Canada

WHMIS (Canada) : Class D-1B: Material causing immediate and serious toxic effects (Toxic).

Class D-2B: Material causing other toxic effects (Toxic).

Class E: Corrosive material

Canadian lists

Canadian NPRI : The following components are listed: Ammonia (total); Ammonia (total)

CEPA Toxic substances : None of the components are listed.

Canada inventory : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

Classification

4161A 10/12

15. Regulatory information



International regulations

Chemical Weapons : Not listed

Convention List Schedule I

Chemicals

Chemical Weapons

Convention List Schedule

II Chemicals

Chemical Weapons

Convention List Schedule

III Chemicals

: Not listed

: Not listed

16. Other information

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



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 are not required on MSDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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



Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

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.

: 4/3/2013. Date of printing **Date of issue** 4/3/2013.

Date of previous issue : No previous validation.

Version : 0.01

Prepared by : Regulatory Affairs Group

Indicates information that has changed from previously issued version.

Notice to reader

11/12 4161A

16. Other information

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.

4161A **12/12**