

Safety data sheet according to U.S.A. Federal Hazcom 2012 and Canadian Regulation SOR/88-66

SECTION 1. Identification of the substance/mixture and of the company/undertaking.

1.1. Product identifier.

Code. **HI83730A-0**
Product name. **Peroxide Reagent A (test vial)**

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

Intended use. **Determination of Peroxides in Edible Oil.**

1.3. Details of the supplier of the safety data sheet.

Name. **Hanna Instruments S.R.L.**
Full address. **str. Hanna Nr 1**
District and Country. **457260 loc. Nusfalau (Salaj) Romania**
Tel. **(+40) 260607700**
Fax. **(+40) 260607700**

e-mail address of the competent person responsible for the Safety Data Sheet. **sds@hannainst.com**

Product distribution by: **Hanna Instruments, Inc - 584 Park East, Woonsochet, Rhode Island, USA 02895 - Technical Service Contact Information: +1-800-426-6287**

1.4. Emergency telephone number.

For urgent inquiries refer to. **USA Emergency Contact Information: +1-800-424-9300 - CHEMTREC 24 hours/365 days - International Emergency Contact Information: +1-703-527-3887 - CHEMTREC 24hours/365 days**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Substance or mixture corrosive to metals, category 1
Carcinogenicity, category 2
Reproductive toxicity, category 2
Acute toxicity, category 3
Acute toxicity, category 4
Specific target organ toxicity - repeated exposure, category 1

Skin corrosion, category 1A
Serious eye damage, category 1

May be corrosive to metals.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
Toxic if inhaled.
Harmful if swallowed.
Causes damage to organs through prolonged or repeated exposure.
Causes severe skin burns and eye damage.
Causes serious eye damage.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

H290 May be corrosive to metals.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.

SECTION 2. Hazards identification. ... / >>

H331	Toxic if inhaled.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.

Precautionary statements:

Prevention:

P201	Obtain special instructions before use.
P280	Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice / attention.
P310	Immediately call a POISON CENTER or doctor.
P391	Collect spillage.

Storage:

P404	Store in a closed container.
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Disposal:

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2.2. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification. **x = Conc. %.** **Classification:**

ACETIC ACID

CAS. 64-19-7 50 ≤ x < 80 Flammable liquid, category 3 H226, Substance or mixture corrosive to metals, category 1 H290, Skin corrosion, category 1A H314

EC. 200-580-7

INDEX. 607-002-00-6

Reg. no. 01-2119475328-30

CHLOROFORM

CAS. 67-66-3 34.75 ≤ x < 50 Carcinogenicity, category 2 H351, Reproductive toxicity, category 2 H361, Acute toxicity, category 3 H331, Acute toxicity, category 4 H302, Specific target organ toxicity - repeated exposure, category 1 H372, Eye irritation, category 2 H319, Skin irritation, category 2 H315

EC. 200-663-8

INDEX. 602-006-00-4

Reg. no. 01-2119486657-20

* There is a batch to batch variation.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

SECTION 4. First aid measures. ... / >>**4.2. Most important symptoms and effects, both acute and delayed.**

Specific information on symptoms and effects caused by the product are unknown.

For symptoms and effects caused by the contained substances, see chap. 11.

CHLOROFORM

Irritant effects, Cough, Shortness of breath, respiratory arrest, Dizziness, narcosis, agitation, spasms, inebriation, Nausea, Vomiting, Stomach/intestinal disorders, cardiovascular disorders, Headache, ataxia (impaired locomotor coordination). Drying-out effect resulting in rough and chapped skin.

ACETIC ACID

ACETIC ACID 100%: Irritation and corrosion, bronchitis, Shortness of breath, gastric spasms, Nausea, Vomiting, Circulatory collapse, shock, Risk of corneal clouding. Risk of blindness!.

4.3. Indication of any immediate medical attention and special treatment needed.

Information not available.

SECTION 5. Firefighting measures.**5.1. Extinguishing media.****SUITABLE EXTINGUISHING EQUIPMENT**

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

CHLOROFORM

Not combustible. Ambient fire may liberate hazardous vapours. Fire may cause evolution of: Hydrogen chloride gas, Phosgene.

ACETIC ACID

ACETIC ACID 100%: Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of: Acetic acid vapours.

5.3. Advice for firefighters.**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.**6.1. Personal precautions, protective equipment and emergency procedures.**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU TLV-ACGIH	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. ACGIH 2016

ACETIC ACID

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	25	10		
TLV-ACGIH	-		10		15
OSHA	USA	25	10		
CAL/OSHA	USA	25	10	37 (C)	40 (C)
NIOSH	USA	25	10	37	15

CHLOROFORM

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	10	2		
TLV-ACGIH	-		10		
OSHA	USA			240 (C)	50 (C)
CAL/OSHA	USA	9.78	2		
NIOSH	USA			9.78	2

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

CHLOROFORM

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms UNI EN 482 and UNI EN 689.

ACETIC ACID

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms UNI EN 482 and UNI EN 689.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SECTION 8. Exposure controls/personal protection. ... / >>

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose limit of use will be defined by the manufacturer (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid	
Colour	colourless	
Odour	pungent	
Odour threshold.	Not available.	
pH.	< 1	
Melting point / freezing point.	Not available.	
Initial boiling point.	60 °C.	(140 °F)
Boiling range.	Not available.	
Flash point.	> 93 °C.	(199,4 °F)
Evaporation rate	Not available.	
Flammability (solid, gas)	Not available.	
Lower inflammability limit.	Not available.	
Upper inflammability limit.	Not available.	
Lower explosive limit.	Not available.	
Upper explosive limit.	Not available.	
Vapour pressure.	78.29 mmHg	
Vapour density	Not available.	
Relative density.	1.257	
Solubility	soluble in water	
Partition coefficient: n-octanol/water	Not available.	
Auto-ignition temperature.	Not available.	
Decomposition temperature.	Not available.	
Viscosity	Not available.	
Explosive properties	Not available.	
Oxidising properties	Not available.	

9.2. Other information.

Information not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

ACETIC ACID

ACETIC ACID 100%: Vapour/air-mixtures are explosive at intense warming.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

CHLOROFORM

Heat-sensitive. Sensitivity to light. Stabilizer ethanol.

SECTION 10. Stability and reactivity. ... / >>**10.3. Possibility of hazardous reactions.**

The vapours may also form explosive mixtures with the air.

ACETIC ACID

ACETIC ACID 100%: Risk of explosion on contact with: chromium (IV) oxide, potassium permanganate, sodium peroxide, perchloric acid, phosphorus chloride, hydrogen peroxide. Can react dangerously with: alcohols, bromine pentafluoride, chlorosulphuric acid, dichromate-sulphuric acid, ethane diamine, ethylene glycol, potassium hydroxide, strong bases, sodium hydroxide, strong oxidising agent, nitric acid, ammonium nitrate, potassium tert-butoxide, oleum. Forms explosive mixtures with air.

CHLOROFORM

Risk of explosion with: Ammonia, Amines, nitrogen oxides, bases, Oxygen, alkali amides, organic nitro compounds, Alcohols, alkali hydroxides, strong alkalis, Fluorine, peroxi compounds, Alkaline earth metals, Alkali metals, Powdered metals, Methanol with alcoholates, Methanol with strong alkalis, Iron in powder form, various alloys sensitive to shock, Methanol with Sodium hydroxide, magnesium in powder form, Oxygen with alkali compounds, Aluminium in powder form, Acetone with alkali compounds, Potassium sensitive to shock, sodium sensitive to shock. Violent reactions possible with: phosphines, bis(dimethylamino)dimethyl tin, nonmetallic hydrogen compounds, Powdered metals, Light metals, Ketones, mineral acids, Strong oxidizing agents, semimetallic hydrogen compounds.

10.4. Conditions to avoid.

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

ACETIC ACID

ACETIC ACID 100%: Avoid exposure to sources of heat and naked flames.

10.5. Incompatible materials.**ACETIC ACID**

ACETIC ACID 100%: Carbonates, hydroxides, many oxides and phosphates. Oxidising substances and bases.

CHLOROFORM

Rubber, various plastics.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects.**CHLOROFORM**

Acute oral toxicity, Symptoms: Nausea, Vomiting, Risk of aspiration upon vomiting., Aspiration may cause pulmonary oedema and pneumonitis. absorption - Acute inhalation toxicity, Acute toxicity estimate: 0.5 mg/l; aerosol, Symptoms: Cough, Shortness of breath, Possible damages: mucosal irritations, absorption - Acute dermal toxicity: Skin irritation, Rabbit, Result: slight irritation. Drying-out effect resulting in rough and chapped skin. Causes skin irritation. Eye irritation. Causes serious eye irritation - CMR effects, Carcinogenicity: Suspected of causing cancer - Teratogenicity: Suspected of damaging the unborn child - Specific target organ toxicity, repeated exposure, Target Organs: Liver, Kidney, Causes damage to organs through prolonged or repeated exposure.

ACETIC ACID

ACETIC ACID 100%: Acute oral toxicity, Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach., Nausea, Vomiting, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit - Acute inhalation toxicity, LCLO Rat: 39.95 mg/l, 4 h, Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract, Pneumonia, bronchitis, Inhalation may lead to the formation of oedemas in the respiratory tract., Symptoms may be delayed - Skin irritation, Rabbit, Result: Causes burns - Eye irritation, Rabbit, Result: Causes serious eye damage. Risk of blindness! Risk of corneal clouding. Germ cell mutagenicity, Genotoxicity in vitro, Ames test, Salmonella typhimurium, Result: negative, Method: OECD Test Guideline 471 - Mutagenicity (mammal cell test): chromosome aberration, Result: negative, Method: OECD Test Guideline 473 - Teratogenicity, Did not show teratogenic effects in animal experiments.

ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture:	6,000 mg/l
LC50 (Inhalation - mists / powders) of the mixture:	Not classified (no significant component).
LD50 (Oral) of the mixture:	1390,000 mg/kg

SECTION 11. Toxicological information. ... / >>

LD50 (Dermal) of the mixture: Not classified (no significant component).

CHLOROFORM
LD50 (Oral). 695 mg/kg Rat
LD50 (Dermal). > 3980 mg/kg Rabbit
LC50 (Inhalation). 47.7 mg/l/4h Rat

ACETIC ACID
LD50 (Oral). 3310 mg/kg Rat
LD50 (Dermal). 1060 mg/kg Rabbit
LC50 (Inhalation). 11.4 mg/l/4h Rat

Carcinogenicity Assessment:
67-66-3 CHLOROFORM
IARC:2B
NTP: Reasonably Anticipated

SKIN CORROSION / IRRITATION.
Corrosive for the skin.

SERIOUS EYE DAMAGE / IRRITATION.
Causes serious eye damage.

RESPIRATORY OR SKIN SENSITISATION.
Does not meet the classification criteria for this hazard class.

GERM CELL MUTAGENICITY.
Does not meet the classification criteria for this hazard class.

CARCINOGENICITY.
Suspected of causing cancer.

REPRODUCTIVE TOXICITY.
May damage fertility or the unborn child.

STOT - SINGLE EXPOSURE.
Does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE.
Causes damage to organs.

ASPIRATION HAZARD.
Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

CHLOROFORM
Toxicity to daphnia and other aquatic invertebrates, EC50 *E.sulcatum*: > 6,560 mg/l; 72 h (maximum permissible toxic concentration) - Toxicity to algae, IC50 *Scenedesmus quadricauda* (Green algae): 1,100 mg/l; 8 d (maximum permissible toxic concentration) - Toxicity to bacteria, EC50 *Pseudomonas putida*: 125 mg/l; 16 h (maximum permissible toxic concentration), EC50 activated sludge: 1,010 mg/l; 3 h.

ACETIC ACID
ACETIC ACID 100%: Toxicity to algae, IC50 *Scenedesmus quadricauda* (Green algae): 4,000 mg/l, 16 h, (maximum permissible toxic concentration) (Lit.) - Toxicity to bacteria, EC50 *Pseudomonas putida*: 2,850 mg/l, 16 h, neutral (maximum permissible toxic concentration), microtox test EC50 *Photobacterium phosphoreum*: 11 mg/l, 15 min.

CHLOROFORM
LC50 - for Fish. 18 mg/l/96h *Lepomis macrochirus*
EC50 - for Crustacea. 79 mg/l/48h *Daphnia magna*

SECTION 12. Ecological information. ... / >>

ACETIC ACID
LC50 - for Fish. > 300.8 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea. > 300.82 mg/l/48h Daphnia magna

12.2. Persistence and degradability.

CHLOROFORM

Biodegradability 0 %; 14 d. Not readily biodegradable.

ACETIC ACID

ACETIC ACID 100%: Biodegradability 99 %, 30 d, Readily biodegradable - 95 %; 5 d, Readily eliminated from water - Biochemical Oxygen Demand (BOD) 880 mg/g (5 d) - Ratio BOD/ThBOD BOD5 76%.

CHLOROFORM

Solubility in water. 8 mg/l

ACETIC ACID

Solubility in water. > 10000 mg/l

Rapidly biodegradable.

12.3. Bioaccumulative potential.

CHLOROFORM

Partition coefficient: n-octanol/water, log Pow: 2 (25 °C), (experimental), (IUCLID). Bioaccumulation is not expected.

CHLOROFORM

Partition coefficient: n-octanol/water. 2 Log Kow

ACETIC ACID

Partition coefficient: n-octanol/water. -0.17

12.4. Mobility in soil.

CHLOROFORM

Distribution among environmental compartments, Adsorption/Soil log Koc: 1.72, (experimental). Mobile in soils.

ACETIC ACID

Partition coefficient: soil/water. 1.153

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

CHLOROFORM

Henry constant 14084 Pa*m³/mol, Method: (experimental), Distribution preferentially in air. Discharge into the environment must be avoided.

ACETIC ACID

ACETIC ACID 100%: Biological effects, Harmful effect due to pH shift. Caustic even in diluted form. Discharge into the environment must be avoided.

SECTION 13. Disposal considerations.**13.1. Waste treatment methods.**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to dangerous goods transport regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.**14.1. UN number.**

ADR / RID, IMDG, IATA: 2922

SECTION 14. Transport information. ... / >>

14.2. UN proper shipping name.

ADR / RID: CORROSIVE LIQUID, TOXIC, N.O.S. (ACETIC ACID, CHLOROFORM, MIXTURE)
 IMDG: CORROSIVE LIQUID, TOXIC, N.O.S. (ACETIC ACID, CHLOROFORM, MIXTURE)
 IATA: CORROSIVE LIQUID, TOXIC, N.O.S. (ACETIC ACID, CHLOROFORM, MIXTURE)

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8 (6.1)



IMDG: Class: 8 Label: 8 (6.1)



IATA: Class: 8 Label: 8 (6.1)



14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
 IMDG: NO
 IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 86 Special Provision: -	Limited Quantities: 1 L	Tunnel restriction code: (E)
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 30 L Maximum quantity: 1 L A3, A803	Packaging instructions: 855 Packaging instructions: 851

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

U.S. Federal Regulations.

TSCA:

All components are listed on TSCA Inventory.

Clean Air Act Section 112(b):

67-66-3 CHLOROFORM

Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act – Priority Pollutants:

67-66-3 CHLOROFORM

SECTION 15. Regulatory information. ... / >>

Clean Water Act – Toxic Pollutants:
67-66-3 CHLOROFORM

DEA List I Chemicals (Precursor Chemicals):
No component(s) listed.

DEA List II Chemicals (Essential Chemicals):
No component(s) listed.

EPA List of Lists:
313 Category Code:
67-66-3 CHLOROFORM

EPCRA 302 EHS TPQ:
67-66-3 CHLOROFORM

EPCRA 304 EHS RQ:
67-66-3 CHLOROFORM

CERCLA RQ:
67-66-3 CHLOROFORM
64-19-7 ACETIC ACID

EPCRA 313 TRI:
67-66-3 CHLOROFORM

RCRA Code:
67-66-3 CHLOROFORM

CAA 112 (r) RMP TQ:
67-66-3 CHLOROFORM

State Regulations.

Massachusetts:
64-19-7 ACETIC ACID
67-66-3 CHLOROFORM

Minnesota:
64-19-7 ACETIC ACID
67-66-3 CHLOROFORM

New Jersey:
64-19-7 ACETIC ACID
67-66-3 CHLOROFORM

New York:
64-19-7 ACETIC ACID
67-66-3 CHLOROFORM

Pennsylvania:
64-19-7 ACETIC ACID
67-66-3 CHLOROFORM

California:
64-19-7 ACETIC ACID
67-66-3 CHLOROFORM

Proposition 65:
WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.
67-66-3 CHLOROFORM C/D

International Regulations.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
CHLOROFORM

Substances subject to the Rotterdam Convention:
None.

SECTION 15. Regulatory information. ... / >>

Substances subject to the Stockholm Convention:
None.

Canadian WHMIS:
Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 3	Flammable liquid, category 3
Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Carc. 2	Carcinogenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
STOT RE 1	Specific target organ toxicity - repeated exposure, category 1
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H372	Causes damage to organs through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 @ RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112@)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit

SECTION 16. Other information. ... / >>

- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Department Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 05 / 08 / 09 / 10 / 11 / 12 / 13 / 14.

Changed TLVs in section 8.1 for following countries:

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