

# SAFETY DATA SHEET

NF 105



## Section 1. Identification

**GHS product identifier** : NF 105  
**Other means of identification** : NF105-3, NF105-5  
**Product type** : Liquid.

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

Not applicable.

**Supplier's details** : In Canada:  
AIM  
9100 Henri Bourassa East  
Montreal, QC  
H1E 2S4  
(514) 494-2000  
  
In the United States:  
AIM  
25 Kenney Drive  
Cranston, RI 02920  
(800) CALL-AIM

**Emergency telephone number (with hours of operation)** : INFOTRAC  
North America: (800) 535-5053  
International: (352) 323-3500

## Section 2. Hazards identification

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

**Classification of the substance or mixture** : ACUTE TOXICITY (oral) - Category 4  
ACUTE TOXICITY (inhalation) - Category 4  
SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2  
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 75.7%

### GHS label elements

#### Hazard pictograms



**Signal word** : Danger

**Hazard statements** : Harmful if swallowed or if inhaled.  
Causes severe skin burns and eye damage.  
Suspected of damaging fertility or the unborn child.

### Precautionary statements

**General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

## Section 2. Hazards identification

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
- Response** : IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
- 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** : NF105-3, NF105-5

### CAS number/other identifiers

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

Ingredient name	%	CAS number
Hydrochloric acid	0.1 - 10	7647-01-0
Hydrobromic acid	0.1 - 10	10035-10-6
HYDROXYACETIC ACID	0.1 - 10	79-14-1
tetrahydro-2-furylmethanol	0.1 - 10	97-99-4
2-aminoethanol	0.1 - 10	141-43-5

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** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. 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. 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.

## Section 4. First aid measures

- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of 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. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. 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. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Harmful if inhaled.
- Skin contact** : Causes severe burns.
- Ingestion** : Harmful if swallowed.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### 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.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds

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

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

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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

**For emergency responders** : If specialised 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

## Section 7. Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Hydrochloric acid	<p><b>ACGIH (United States, 0/1994).</b>            CEIL: 5 ppm            TWA: 5 mg/m<sup>3</sup>            CEIL: 7.5 mg/m<sup>3</sup></p> <p><b>NIOSH (United States, 0/1994).</b>            TWA: 7 ppm            STEL: 10 ppm            CEIL: 5 ppm            TWA: 2 mg/m<sup>3</sup>            STEL: 8 mg/m<sup>3</sup>            CEIL: 7 mg/m<sup>3</sup></p> <p><b>OSHA (United States, 0/1989).</b>            TWA: 8 ppm            CEIL: 5 ppm            TWA: 7 mg/m<sup>3</sup>            CEIL: 7 mg/m<sup>3</sup></p> <p><b>ACGIH TLV (United States, 3/2015).</b>            C: 2 ppm</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>            CEIL: 5 ppm            CEIL: 7 mg/m<sup>3</sup></p> <p><b>NIOSH REL (United States, 10/2013).</b>            CEIL: 5 ppm            CEIL: 7 mg/m<sup>3</sup></p> <p><b>OSHA PEL (United States, 2/2013).</b>            CEIL: 5 ppm            CEIL: 7 mg/m<sup>3</sup></p>
Hydrobromic acid	<p><b>ACGIH TLV (United States, 3/2015).</b>            C: 2 ppm</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>            CEIL: 3 ppm            CEIL: 10 mg/m<sup>3</sup></p> <p><b>NIOSH REL (United States, 10/2013).</b>            CEIL: 3 ppm            CEIL: 10 mg/m<sup>3</sup></p>

## Section 8. Exposure controls/personal protection

tetrahydro-2-furylmethanol

2-aminoethanol

**OSHA PEL (United States, 2/2013).**

TWA: 3 ppm 8 hours.

TWA: 10 mg/m<sup>3</sup> 8 hours.**AIHA WEEL (United States, 10/2011).**

TWA: 0.5 ppm 8 hours.

**ACGIH (United States, 0/1994).**

TWA: 3 ppm

STEL: 6 ppm

TWA: 7.5 mg/m<sup>3</sup>STEL: 15 mg/m<sup>3</sup>CEIL: 6 mg/m<sup>3</sup>**NIOSH (United States, 0/1994).**

TWA: 3 ppm

STEL: 6 ppm

CEIL: 15 ppm

TWA: 8 mg/m<sup>3</sup>STEL: 15 mg/m<sup>3</sup>**OSHA (United States, 0/1989).**

TWA: 3 ppm

STEL: 6 ppm

CEIL: 5.1 ppm

TWA: 8 mg/m<sup>3</sup>STEL: 15 mg/m<sup>3</sup>**ACGIH TLV (United States, 3/2015).**

TWA: 3 ppm 8 hours.

TWA: 7.5 mg/m<sup>3</sup> 8 hours.

STEL: 6 ppm 15 minutes.

STEL: 15 mg/m<sup>3</sup> 15 minutes.**OSHA PEL 1989 (United States, 3/1989).**

TWA: 3 ppm 8 hours.

TWA: 8 mg/m<sup>3</sup> 8 hours.

STEL: 6 ppm 15 minutes.

STEL: 15 mg/m<sup>3</sup> 15 minutes.**NIOSH REL (United States, 10/2013).**

TWA: 3 ppm 10 hours.

TWA: 8 mg/m<sup>3</sup> 10 hours.

STEL: 6 ppm 15 minutes.

STEL: 15 mg/m<sup>3</sup> 15 minutes.**OSHA PEL (United States, 2/2013).**

TWA: 3 ppm 8 hours.

TWA: 6 mg/m<sup>3</sup> 8 hours.**Appropriate engineering controls**

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

**Environmental exposure controls**

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

**Individual protection measures****Hygiene measures**

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

**Eye/face protection**

- : Safety eyewear complying with an approved standard should be used 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 and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

## Section 8. Exposure controls/personal protection

### Skin protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products 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.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : 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.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : Not available.
- Flash point** : Not available.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Relative density** : Not available.
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : 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
Hydrochloric acid	LD50 Oral	Mouse	151 mg/kg	-
	LD50 Oral	Mouse	2950 mg/kg	-
	LD50 Oral	Rat	915 mg/kg	-
	LDLo Oral	Mouse	150 mg/kg	-
	LDLo Oral	Mouse	110 mg/kg	-
Hydrobromic acid	LC50 Inhalation Gas.	Rat	2858 ppm	1 hours
HYDROXYACETIC ACID	LD50 Oral	Guinea pig	1920 mg/kg	-
	LD50 Oral	Rat	1950 mg/kg	-
tetrahydro-2-furylmethanol	LD50 Oral	Rat	1600 mg/kg	-
	LD50 Oral	Guinea pig	620 mg/kg	-
2-aminoethanol	LD50 Oral	Mouse	700 mg/kg	-
	LD50 Oral	Rat	1720 mg/kg	-
	LD50 Oral	Rat	1720 mg/kg	-
	LD50 Oral	Rat	1720 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hydrochloric acid	Eyes - Mild irritant	Rabbit	-	0.5 minutes 5 milligrams	-
	Skin - Mild irritant	Human	-	24 hours 4 Percent	-
tetrahydro-2-furylmethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
2-aminoethanol	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Skin - Moderate irritant	Rabbit	-	505 milligrams	-

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

#### Classification

Product/ingredient name	OSHA	IARC	NTP
Hydrochloric acid	-	3	-

#### Reproductive toxicity

Not available.

#### Teratogenicity

Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)



## Section 11. Toxicological information

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye damage.  
**Inhalation** : Harmful if inhaled.  
**Skin contact** : Causes severe burns.  
**Ingestion** : Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

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

**Inhalation** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Skin contact** : Adverse symptoms may include the following:  
 pain or irritation  
 redness  
 blistering may occur  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Ingestion** : Adverse symptoms may include the following:  
 stomach pains  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

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

#### Short term exposure

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

#### Long term exposure

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

#### Potential chronic health effects

Not available.

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : Suspected of damaging the unborn child.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : Suspected of damaging fertility.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	1938.4 mg/kg
Inhalation (gases)	3579.1 ppm

#### 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.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Hydrochloric acid	Acute LC50 240000 µg/l Marine water	Crustaceans - Carcinus maenas - Adult	48 hours
2-aminoethanol	Acute LC50 282 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 8.42 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute LC50 >100000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 170000 µg/l Fresh water	Fish - Carassius auratus	96 hours

### Persistence and degradability

Not available.

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2-aminoethanol	-1.31	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 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
<b>UN number</b>	1760	1760	1760	1760	1760	1760
<b>UN proper shipping name</b>	CORROSIVE LIQUID, N.O.S. (hydrobromic acid)	CORROSIVE LIQUID, N.O.S. (hydrobromic acid)	CORROSIVE LIQUID, N.O.S. (hydrobromic acid)	CORROSIVE LIQUID, N.O.S. (hydrobromic acid)	CORROSIVE LIQUID, N.O.S. (hydrobromic acid)	CORROSIVE LIQUID, N.O.S. (hydrobromic acid)
<b>Transport hazard class(es)</b>	8 	8 	8 	8 	8 	8 
<b>Packing group</b>	III	III	III	III	III	III
<b>Environmental hazards</b>	No.	No.	No.	No.	No.	No.
<b>Additional information</b>	<b>Reportable quantity</b> 50000 lbs / 22700 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).	-	<b>Tunnel code</b> (E)	-	-

**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.

## Section 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
All components are listed or exempted.  
**Clean Water Act (CWA) 311:** Hydrochloric acid  
**Clean Air Act (CAA) 112 regulated flammable substances:** Hydrochloric acid  
**Clean Air Act (CAA) 112 regulated toxic substances:** Hydrochloric acid

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

**Clean Air Act Section 602 Class I Substances** : Not listed

## Section 15. Regulatory information

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Listed

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Hydrochloric acid	0.1 - 10	Yes.	500	-	5000	-

**SARA 304 RQ** : 50000 lbs / 22700 kg

### SARA 311/312

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

#### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Hydrochloric acid	0.1 - 10	No.	No.	No.	Yes.	No.
Hydrobromic acid	0.1 - 10	No.	No.	No.	Yes.	No.
HYDROXYACETIC ACID	0.1 - 10	No.	No.	No.	Yes.	No.
tetrahydro-2-furylmethanol	0.1 - 10	No.	No.	No.	Yes.	Yes.
2-aminoethanol	0.1 - 10	Yes.	No.	No.	Yes.	No.

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Hydrochloric acid	7647-01-0	0.1 - 10
<b>Supplier notification</b>	Hydrochloric acid	7647-01-0	0.1 - 10

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

### State regulations

**Massachusetts** : The following components are listed: Hydrobromic acid; Hydrochloric acid; 2-aminoethanol; TETRAHYDROFURFURYL ALCOHOL

**New York** : The following components are listed: Hydrochloric acid

**New Jersey** : The following components are listed: Hydrobromic acid; Hydrochloric acid; 2-aminoethanol

**Pennsylvania** : The following components are listed: Hydrobromic acid; Hydrochloric acid; 2-aminoethanol; 2-FURANMETHANOL, TETRAHYDRO-

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

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

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Inform Consent (PIC)

## Section 15. Regulatory information

Not listed.

### [UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

### [International lists](#)

#### [National inventory](#)

<a href="#">Australia</a>	: All components are listed or exempted.
<a href="#">Canada</a>	: All components are listed or exempted.
<a href="#">China</a>	: Not determined.
<a href="#">Europe</a>	: Not determined.
<a href="#">Japan</a>	: Not determined.
<a href="#">Malaysia</a>	: Not determined.
<a href="#">New Zealand</a>	: Not determined.
<a href="#">Philippines</a>	: All components are listed or exempted.
<a href="#">Republic of Korea</a>	: All components are listed or exempted.
<a href="#">Taiwan</a>	: Not determined.

## Section 16. Other information

### [Hazardous Material Information System \(U.S.A.\)](#)

Health	3
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 are not required on SDSs 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 \(U.S.A.\)](#)



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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.

### [History](#)

<a href="#">Date of printing</a>	: 6/30/2015
<a href="#">Date of issue/Date of revision</a>	: 6/26/2015
<a href="#">Date of previous issue</a>	: No previous validation
<a href="#">Version</a>	: 0.01

## Section 16. Other information

### 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 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

: 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.