



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>Hydrochloric Acid, 20 Be</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Industrial applications
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Irving Blending & Packaging PO Box 1169 Saint John, NB E2L 4E6 CA Phone: 1.800.574.5823 Emergency Phone: 1.506.648.3060
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 3
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
<b>Environmental hazards</b>	Not classified.	
<b>WHMIS 2015 defined hazards</b>	Not classified	
<b>Label elements</b>		



**Signal word** Danger

**Hazard statement** May be corrosive to metals.  
Causes severe skin burns and eye damage.  
Harmful if swallowed.  
Toxic if inhaled.  
May cause respiratory irritation.

### Precautionary statement

#### Prevention

Keep only in original packaging.  
Do not breathe mist or vapor.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.

#### Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Specific treatment (see information on this label). Absorb spillage to prevent material-damage.

#### Storage

Store in a corrosion resistant container with a resistant inner liner.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

#### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

**WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)** None known

**WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)** None known

<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/Information on Ingredients

#### Mixture

Chemical name	Common name and synonyms	CAS number	%
Hydrochloric acid		7647-01-0	20

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First Aid Measures

<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment (see information on this label).
<b>Skin contact</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER/doctor.
	Wash contaminated clothing before reuse. Specific treatment (see information on this label).
<b>Eye contact</b>	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/doctor.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
<b>Most important symptoms/effects, acute and delayed</b>	Harmful if swallowed. Causes chemical burns to mouth, throat and stomach. Inhalation of vapour can cause respiratory tract irritation or chemical burns. Burning pain and severe corrosive skin damage. Causes serious eye damage. Permanent eye damage including blindness could result. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Wear impervious gloves and chemical splash goggles. Do not get in eyes, on skin or clothing. Keep out of reach of children.

### 5. Fire Fighting Measures

<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Not flammable, but reacts with most metals to form flammable hydrogen gas. Firefighters should wear a self-contained breathing apparatus.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Fire-fighting equipment/instructions</b>	Cool containers with flooding quantities of water until well after fire is out.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Corrosive - May burst. Dangerous gases produced. Firefighters should wear a self-contained breathing apparatus.
<b>Hazardous combustion products</b>	Irritating, corrosive and/or toxic gases or fumes will be released during a fire. May include and are not limited to: Hydrogen gas. Chlorine gas.

### 6. Accidental Release Measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Immediately evacuate personnel to safe areas. Keep out of low areas. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Prevent entry into waterways, sewers, basements or confined areas.

## 7. Handling and Storage

**Precautions for safe handling**

**DANGER -- CORROSIVE**  
Do not get this material in your eyes, on your skin, or on your clothing. Do not breathe mist or vapor. Do not taste or swallow. Ensure adequate ventilation. Do not use in poorly ventilated or confined spaces without proper respiratory protection. Avoid prolonged exposure.

Wear appropriate personal protective equipment when handling this product. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash thoroughly after handling.

Prevent acid from contacting strong alkalis or metals. Never add water to this product. Use only non-sparking tools.

**Conditions for safe storage, including any incompatibilities**

Store in corrosive resistant container with a resistant inner liner. Store in a cool, dry place out of direct sunlight. Keep container closed when not in use. Store locked up. Store in a well-ventilated place.

## 8. Exposure Controls/Personal Protection

**Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Components	Type	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m <sup>3</sup>
		5 ppm

**US. ACGIH Threshold Limit Values**

Components	Type	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	2 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m <sup>3</sup>
		5 ppm

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Exposure guidelines**

See above

**Appropriate engineering controls**

Eye wash facilities and emergency shower must be available when handling this product. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

**Skin protection****Hand protection**

Impervious gloves. Confirm with reputable supplier first.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

**Thermal hazards**

Not available.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

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**9. Physical and Chemical Properties**

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<b>Appearance</b>	Clear
<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid
<b>Color</b>	Colorless to pale yellow
<b>Odor</b>	Sharp, pungent
<b>Odor threshold</b>	Not available.
<b>pH</b>	For HCL solutions: 0.1(1.0 N), 1.1 (0.1 N), 2.02 (0.01 N)
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	227.48 °F (108.6 °C)
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Flash point</b>	Not applicable
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable
<b>Flammability limit - upper (%)</b>	Not applicable
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	13.3 kPa (100 mm Hg) at 20°C (36%)
<b>Vapor density</b>	1.268 @ 20°C
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Soluble
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	2 centipoise (Dynamic)
<b>Other information</b>	
<b>Molecular formula</b>	H-Cl
<b>Percent volatile</b>	100

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**10. Stability and Reactivity**

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<b>Reactivity</b>	Corrosive to metals. Reacts with soft metals such as aluminum and zinc producing flammable hydrogen gas. Reacts vigorously with alkaline material. This product may react with reducing agents.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Heat, flames and sparks. Contact with incompatible materials. Do not mix with other chemicals. Avoid direct sunlight. Never add water to this product.
<b>Incompatible materials</b>	Amines. Bases. Caustics. Oxidizers. Reducing agents. Soft metals.
<b>Hazardous decomposition products</b>	May include and are not limited to: Hydrogen chloride. Chlorine gas. Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

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**11. Toxicological Information**

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<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Harmful if swallowed. Causes digestive tract burns.

<b>Inhalation</b>	Toxic by inhalation. Prolonged inhalation may be harmful. May cause respiratory tract irritation or chemical burns.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Permanent eye damage including blindness could result. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Harmful if swallowed. Causes chemical burns to mouth, throat and stomach.

**Information on toxicological effects**

<b>Acute toxicity</b>	Toxic by inhalation. Harmful if swallowed. Causes severe skin burns and eye damage. May cause respiratory tract irritation or chemical burns. Ingestion causes burns of the upper digestive and respiratory tracts.
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Components	Species	Test Results
Hydrochloric acid (CAS 7647-01-0)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Mouse	1449 mg/kg
	Rat	5010 mg/kg
<i>Inhalation</i>		
LC50	Mouse	1108 ppm, 1 Hours 554 ppm
	Rat	3124 ppm, 1 Hours 1562 mg/l/4h
<i>Oral</i>		
LD50	Rabbit	900 mg/kg
	Rat	700 mg/kg

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

**Exposure minutes** Not available.

**Erythema value** Not available.

**Oedema value** Not available.

**Serious eye damage/eye irritation** Causes serious eye damage.

**Corneal opacity value** Not available.

**Iris lesion value** Not available.

**Conjunctival reddening value** Not available.

**Conjunctival oedema value** Not available.

**Recover days** Not available.

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization. Non-hazardous by WHMIS/OSHA criteria.

**Mutagenicity**

**Carcinogenicity** Non-hazardous by WHMIS/OSHA criteria.  
See below.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Hydrochloric acid (CAS 7647-01-0) Volume 54 - 3 Not classifiable as to carcinogenicity to humans.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive toxicity** Non-hazardous by WHMIS/OSHA criteria.

**Teratogenicity** Non-hazardous by WHMIS/OSHA criteria.

**Specific target organ toxicity - single exposure** Respiratory tract irritation.

**Specific target organ toxicity - repeated exposure** Not classified.

<b>Aspiration hazard</b>	Not classified.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological Information

**Ecotoxicity** Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems. See below

**Ecotoxicological data**

Components	Species	Test Results
Hydrochloric acid (CAS 7647-01-0)		
<b>Aquatic</b>		
Fish	LC50 Western mosquitofish ( <i>Gambusia affinis</i> )	282 mg/L, 96 hours

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

**Bioaccumulative potential** No data available.

**Mobility in soil** No data available.

**Mobility in general** Not available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal Considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations. Waste must be disposed of in accordance with federal, state/provincial and local environmental control regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

**Transport of Dangerous Goods (TDG) Proof of Classification** In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.

**U.S. Department of Transportation (DOT)**

**Basic shipping requirements:**

<b>UN number</b>	UN1789
<b>Proper shipping name</b>	Hydrochloric acid
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Special provisions</b>	386, A3, A6, B3, B15, B133, IB2, N41, T8, TP2

**Transportation of Dangerous Goods (TDG - Canada)**

**Basic shipping requirements:**

<b>UN number</b>	UN1789
<b>Proper shipping name</b>	HYDROCHLORIC ACID
<b>Hazard class</b>	8
<b>Packing group</b>	II

**DOT**





## 15. Regulatory Information

**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Hydrochloric acid (CAS 7647-01-0) Class B

**WHMIS 2015 Exemptions** Not applicable

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Hydrochloric acid (CAS 7647-01-0) Listed.

**US EPCRA Section 304 Extremely Haz. Subs. & CERCLA Haz. Subs.: Section 304 EHS reportable quantity**

Hydrochloric acid (CAS 7647-01-0) 5000 LBS

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
 Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - Yes

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Hydrochloric acid	7647-01-0	20

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Hydrochloric acid (CAS 7647-01-0)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Hydrochloric acid (CAS 7647-01-0)

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)** Hazardous substance

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Hydrochloric acid (CAS 7647-01-0) 6545

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Hydrochloric acid (CAS 7647-01-0) 20 %WV

**DEA Exempt Chemical Mixtures Code Number**

Hydrochloric acid (CAS 7647-01-0) 6545

**Food and Drug Administration (FDA)**

Total food additive  
GRAS food additive  
Controlled substance

**US state regulations**

**US - California Hazardous Substances (Director's): Listed substance**

Hydrochloric acid (CAS 7647-01-0) Listed.

**US - Illinois Chemical Safety Act: Listed substance**

Hydrochloric acid (CAS 7647-01-0)

**US - Louisiana Spill Reporting: Listed substance**

Hydrochloric acid (CAS 7647-01-0) Listed.

**US - Minnesota Haz Subs: Listed substance**

Hydrochloric acid (CAS 7647-01-0) Listed.

**US - New Jersey RTK - Substances: Listed substance**

Hydrochloric acid (CAS 7647-01-0)

**US - North Carolina Toxic Air Pollutants: Listed substance**

Hydrochloric acid (CAS 7647-01-0)

**US - Texas Effects Screening Levels: Listed substance**

Hydrochloric acid (CAS 7647-01-0) Listed.

**US. Massachusetts RTK - Substance List**

Hydrochloric acid (CAS 7647-01-0)

**US. New Jersey Worker and Community Right-to-Know Act**

Hydrochloric acid (CAS 7647-01-0)

**US. Pennsylvania RTK - Hazardous Substances**

Hydrochloric acid (CAS 7647-01-0)

**US. Rhode Island RTK**

Hydrochloric acid (CAS 7647-01-0)

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**Inventory status**

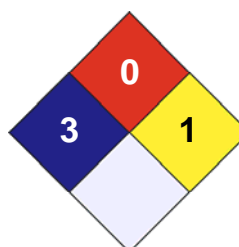
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**16. Other Information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X



**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

**Issue date**

27-April-2016

**Version #**

01

**Effective date**

27-April-2016

**Prepared by**

Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

**Other information**

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.