Safety Data Sheet

Issuing Date: June 17, 2025 Revision Date: N/A Version Number 1

1. Identification of the Substance/Preparation and the Company Undertaking

GHS Product Identifier

Product Name 20 Degree Baume (31.45%) Hydrochloric (Muriatic) Acid

Other Means of Identification

Item number for 1 gallon bottle: 91045

UPC number: 077223-910454

Recommended use of the chemical and restrictions on use

Recommended Use Industrial Chemical

Supplier's Details

Supplier's Address
Univar Solutions USA
3075 Highland Pkwy
Suite 200
Downers Grove, IL 60515
United States of America (USA)

Distributor's Address
SKM Industries Inc.
1012 Underwood Road
Olyphant, PA 18447
Telephone: 570-383-3062

Emergency Telephone Number

Chemtrec US & Canada 800-424-9300

2. HAZARDS IDENTIFICATION

GHS Classification

Corrosive to metals	Category 1
Skin Corrosion	Category 1B
Serious eye damage	Category 1
Specific target organ toxicity Single exposure	Category 3 (respiratory system)
Specific target organ toxicity Repeated exposure	Category 2
GHS label elements	

Signal word	Danger
Hazard statements	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	**Prevention:** P234 Keep only in original container. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. **Response:** P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 + P310 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. P314 Get medical advice/ attention if you feel unwell. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. **Storage:** P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P406 Store in corrosive resistant container with a resistant inner liner. **Disposal:** P501 Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture

Hazardous Components

CAS-No.	Chemical name	Weight percent
7647-01-0	Hydrochloric acid	30 - 50

Any Concentration shown as a range is due to batch variation

Synonyms: Muriatic Acid

4. FIRST AID MEASURES

Description of necessary first-aid measures

General Advice	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	If unconscious, place in recovery position and seek medical advice.
In case of skin contact	If symptoms persist, call a physician. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes. Take victim immediately to hospital
In case of eye contact	Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist
If swallowed	Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital

Protection of First Aiders Use personal protection equipment.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media High volume water jet

Specific Hazards arising from the chemical

Do not allow run off from fire-fighting to run into drains or water courses.

Hazardous combustion products

Toxic fumes

Protective Equipment and Precautions for Firefighters

Wear appropriate self-contained breathing apparatus MSHA/NIOSH (approved or equivalent) and full protective gear. Cool closed containers exposed to fire with water spray. Avoid inhalation of material or combustion by-products; stay upwind.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid breathing vapours. Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions Avoid release into the environment. Do not allow to enter drains or watercourses. If the product contaminates rivers, lakes or drains, inform respective authorities.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Contain the spillage with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth to soak up the product and place in a suitable container for disposal in accordance with the waste regulations

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards

Incompatible products

Strong oxidizing and reducing agents, strong alkalis and strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Exposure Guidelines

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
7647 -01-0	Hydrochloric acid	C	2 ppm	ACGIH
		C	5 ppm 7 mg/m3	NIOSH REL
		C	5 ppm 7 mg/m3	OSHA Z-1
		C	5 ppm	OSHA P0

			7 mg/m3	

Appropriate engineering controls

Engineering Measures Showers, eyewash stations, ventilation systems

Individual protection measures, such as personal protective equipment

Respiratory Protection
General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand Protection
The suitability for a specific workplace should be discussed with the producers of the protective gloves

Eye protection
Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection
Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place

Hygiene measures
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Property	**Value**
Appearance	: liquid
Colour	: colourless, light yellow
Odour	: pungent
Odour Threshold	: No data available
pH	: < 2
Freezing Point (Melting point/freezing point)	: -34 - -15 °C (-29 - 5 °F)

BoilingPoint(Boiling point/boiling range)	: 60 - 105 °C (140 - 221 °F)
Flash point	: > 93 °C (> 199 °F)
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: 1.041 - 1.273
Density	: 1.157 g/cm3
Solubility(ies)	
Water solubility	: completely miscible
Solubility in other solvents	: No data available
Partition coefficient: noctanol/water	: No data available
Auto -ignition temperature	: No data available
Thermal decomposition	: No data available

10. STABILITY AND REACTIVITY

Reactivity	No dangerous reaction known under conditions of normal use
Chemical Stability	Stable under normal storage and handling conditions
Possibility of Hazardous reactions	No decomposition if stored and applied as directed.
Hazardous Polymerization	Will not occur

Incompatible Materials

Acids
Amines
Ammonia
brass
Chlorinated hydrocarbons
Metals metallic oxides nitrates sodium hypochlorite
steel
Strong bases
Strong oxidizing agents
Sulphides water Aluminium
Peroxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Components:

7647-01-0

Acute inhalation toxicity	LC50 (Rat, male): 8.3 mg/l Exposure time: 0.5 h Test atmosphere: dust/mist
Skin corrosion/irritation	

Components:
7647-01-0:
Species: Rabbit
Result: Causes severe burns.

Carcinogenicity

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

STOT – single exposure

Components:
7647-01-0:

Target Organs:	Respiratory system, Lungs
Assesment:	The substance or mixture is classified as specific target organ toxicant, single ex-posure, category 3 with respiratory tract irritation.

STOT – repeated exposure

Product:

Assessment:	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Ozone depletion potential	Regulation: 40 CFR Protection of Environment; Part 82 Pro-tection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufac-tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of in accordance with all applicable local, state and federal regulations. Do not allow to enter into drains, water courses or the soil.

Contaminated Packaging Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT (Department of Transportation):
UN1789, Hydrochloric acid, 8, II

IATA (International Air Transport Association):
UN1789, Hydrochloric acid, 8, II

IMDG (International Maritime Dangerous Goods):
UN1789, HYDROCHLORIC ACID, 8, II, Flash Point:> 93 °C(> 199 °F)

15. Regulatory Information

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA reportable quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Hydrochloric acid	7647-01-0	5000	15711

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Hydrochloric acid	7647-01-0	5000	15711

SARA 311/312 Hazards	Corrosive to metals Skin corrosion or irritation Serious eye damage or eye irritation Specific target organ toxicity (single or repeated exposure)
SARA 302	
SARA 313	7647-01-0 Hydrochloric acid The following components are subject to reporting levels established by SARA Title III, Section 313:
Clean Air Act	7647-01-0 Hydrochloric acid

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):
7647-01-0 Hydrochloric acid

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Pre-vention (40 CFR 68.130, Subpart F):
7647-01-0 Hydrochloric acid

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Inter-mediate or Final VOC's (40 CFR 60.489).

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:
7647-01-0 Hydrochloric acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:
7647-01-0 Hydrochloric acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

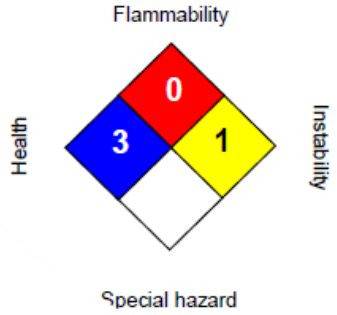
Massachusetts Right To Know	7647-01-0 Hydrochloric Acid
Pennsylvania Right To Know	7647-01-0 Hydrochloric Acid 7732-18-5 Water
California Prop 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other re-productive harm.

The components of this product are reported in the following inventories:

TSCA	On the inventory, or in compliance with the inventory
DSL	On the inventory, or in compliance with the inventory
AICS	On the inventory, or in compliance with the inventory
NZIoC	Not in compliance with the inventory
ENCS	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
PICCS	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	3*
FLAMMABILITY	0
PHYSICAL HAZARD	4

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 =Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	American Conference of Govern-ment Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substanc-es List	NIOSH	National Institute for Occupational Safety & Health

CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemi-cals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenar-io Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chem-icals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commer-cial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composi-tion, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		