

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

SECTION 1. IDENTIFICATION

Product name : Sulfuric acid concentrate

Number : 000000021482

Product Use Description : Laboratory chemicals

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid

Color : colourless

Odor : odourless

Classification of the substance or mixture

Classification of the substance : Corrosive to metals, Category 1
or mixture

GHS Label elements, including precautionary statements

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Symbol(s)

:



Signal word

: Warning

Hazard statements

: May be corrosive to metals.

Precautionary statements

: **Prevention:**

Keep only in original container.

Wear protective gloves/ eye protection/ face protection.

Response:

Absorb spillage to prevent material damage.

Storage:

Store in corrosive resistant container with a resistant inner liner.

Carcinogenicity

NTP:

Sulfuric Acid
Known carcinogen

7664-93-9

IARC:

Sulfuric Acid
Group 1: Carcinogenic to humans
Group 1: Carcinogenic to humans

7664-93-9

ACGIH:

Sulfuric Acid
A2: Suspected human carcinogen

7664-93-9

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

: H₂SO₄

Chemical name	CAS-No.	Concentration
Water	7732-18-5	>=90.00 - <=100.00 %

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Sulfuric Acid

7664-93-9

≥0.10 - <1.00 %

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.
- Inhalation : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician immediately.
- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye. Call a physician immediately.
- Ingestion : Clean mouth with water and drink afterwards plenty of water. Call a physician immediately. Do NOT induce vomiting.

Notes to physician

- Most important symptoms/effects, acute and delayed : No information available.
- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder
- Specific hazards during firefighting : Fire may cause evolution of:
Sulphur oxides
- Special protective equipment : Wear self-contained breathing apparatus and protective suit.

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

for firefighters

No unprotected exposed skin areas.

Further information

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

SECTION 6. ACCIDENTAL RELEASE MEASURESPersonal precautions,
protective equipment and
emergency procedures: Evacuate personnel to safe areas.
Wear personal protective equipment. Unprotected persons
must be kept away.
Ensure adequate ventilation.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

Environmental precautions

: Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.
Should not be released into the environment.Methods and materials for
containment and cleaning
up: Ventilate the area.
Dilute with water.
Neutralise with the following product(s):
lime
Contain spillage, soak up with non-combustible absorbent
material, (e.g. sand, earth, diatomaceous earth, vermiculite) and
transfer to a container for disposal according to local / national
regulations (see section 13).
Never neutralise with the following products:
soda ash**SECTION 7. HANDLING AND STORAGE****Handling**Precautions for safe
handling: Wear personal protective equipment.
Use only in well-ventilated areas.
Use only acid resistant equipment.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

Advice on protection against

: The product itself does not burn.

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

fire and explosion

Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities : Store in original container.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Storage rooms must be properly ventilated.
Keep in an area equipped with acid resistant flooring.
Store in upright position only.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.
Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment.
Do not breathe vapours or spray mist.
Avoid contact with skin, eyes and clothing.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles

Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.

Skin and body protection : If splashes are likely to occur, wear:
Acid-resistant protective clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures : Separate rooms are required for washing, showering and changing clothes.
Contaminated work clothing should not be allowed out of the workplace.
Keep working clothes separately.
Take off all contaminated clothing immediately.
Remove and wash contaminated clothing before re-use.
Wash hands before breaks and at the end of workday.

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Avoid contact with the skin and the eyes.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Sulfuric Acid	7664-93-9	TWA : Time weighted average	1 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Sulfuric Acid	7664-93-9	PEL : Permissible exposure limit	1 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Sulfuric Acid	7664-93-9	REL : Recommended exposure limit (REL):	1 mg/m3	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Sulfuric Acid	7664-93-9	TWA : Time weighted average	0.2 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information	:	Form of exposure : Thoracic fraction.			

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : liquid

Color : colourless

Odor : odourless

Odor threshold : Note: No data available

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

pH	: Note: acidic
Melting point/range	: Note: No data available
Boiling point/boiling range	: ca. 100 °C at 1,013 hPa
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Flammability	: Not applicable
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: similar to water
Vapor density	: Note: No data available
Density	: ca. 1.010 g/cm ³ at 20 °C
Water solubility	: Note: completely miscible
Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable
Auto-ignition temperature	: Note: not auto-flammable

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Decomposition temperature	: Note: No data available
Viscosity, dynamic	: Note: No data available
Viscosity, kinematic	: Note: No data available
Oxidizing properties	: The substance or mixture is not classified as oxidizing.
Molecular weight	: 98.08 g/mol
Bulk density	: Note: Not applicable
Corrosivity	: Note: Corrosive to metals

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Corrosive in contact with metals Hazardous polymerisation does not occur.
Conditions to avoid	: Protect from extreme heat and cold.
Incompatible materials	: Bases Reducing agents Organic materials Copper Amines Alcohols Aldehydes Cyanides Sulphides Nitriles Gives off hydrogen by reaction with metals.
Hazardous decomposition products	: Fire may cause evolution of: Sulphur oxides

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Note: No data available

Acute inhalation toxicity : Note: No data available

Acute dermal toxicity : Note: No data available

Skin irritation : Note: No data available

Eye irritation : Note: No data available

Sensitisation : Note: No data available

Repeated dose toxicity
Sulfuric Acid : No data available

Genotoxicity in vitro : Note: Not classified due to data which are conclusive although insufficient for classification.

Carcinogenicity
Sulfuric Acid : Note: An increased risk of cancer in humans has been shown in work-place based studies. This hazard is related to exposure to the mist/vapor of the acid and not the acid solution. Please review IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Occupational Exposures to Mists and Vapours from Strong Inorganic Acids; and Other Industrial Chemicals, Vol. 54, 1992 and IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, A review of human carcinogens: Chemical Agents and Related Occupations, Vol. 100F, 2012.

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Reproductive toxicity
Sulfuric Acid : Note: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : Note: No data available

Toxicity to daphnia and other
aquatic invertebrates : Note: No data available

Toxicity to algae : Note: No data available

Toxicity to bacteria : Note: No data available

Elimination information (persistence and degradability)

Biodegradability : Note: The methods for determining biodegradability are not
applicable to inorganic substances.

Further information on ecology**SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal methods : Observe all Federal, State, and Local Environmental
regulations.

SECTION 14. TRANSPORT INFORMATION

DOT UN/ID No. : UN 3264
Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC,
N.O.S.
(Sulphuric acid, Solution)

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Class	8
Packing group	III
Hazard Labels	8

IATA	UN/ID No.	: UN 3264	
	Description of the goods	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric acid, Solution)	
	Class	: 8	
	Packaging group	: III	
	Hazard Labels	: 8	
	Packing instruction (cargo aircraft)	: 856	
	Packing instruction (passenger aircraft)	: 852	
	Packing instruction (passenger aircraft)	: Y841	

IMDG	UN/ID No.	: UN 3264
	Description of the goods	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULPHURIC ACID, SOLUTION)
	Class	: 8
	Packaging group	: III
	Hazard Labels	: 8
	EmS Number	: F-A, S-B
	Marine pollutant	: no
	IMDG Code segregation group (SGG1) – ACIDS,	

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection : All components of this product are on the Canadian DSL

Sulfuric acid concentrate**38308-1EA**

Version 1.2

Revision Date 02/02/2024

Print Date 02/03/2024

Act (CEPA). Domestic
Substances List (DSL)

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Existing Chemicals : On the inventory, or in compliance with the inventory
Inventory (KECI)

Philippines. Inventory of : On the inventory, or in compliance with the inventory
Chemicals and Chemical
Substances (PICCS)

China. Inventory of Existing : On the inventory, or in compliance with the inventory
Chemical Substances
(IECSC)

New Zealand. Inventory of : On the inventory, or in compliance with the inventory
Chemicals (NZIoC), as
published by ERMA New
Zealand

Taiwan Chemical : On the inventory, or in compliance with the inventory
Substance Inventory (TCSI)

National regulatory information

SARA 302 Components : The following components are subject to reporting levels
established by SARA Title III, Section 302:
: Sulfuric Acid 7664-93-9

SARA 313 Components : This material does not contain any chemical components with
known CAS numbers that exceed the threshold (De Minimis)
reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards : Chronic Health Hazard

Sulfuric acid concentrate**38308-1EA**

Version 1.2

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California Prop. 65

:



WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Sulfuric Acid

7664-93-9

Massachusetts RTK

: Sulfuric Acid

7664-93-9

New Jersey RTK

: Sulfuric Acid

7664-93-9

Pennsylvania RTK

: Water

7732-18-5

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 1	1
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group