

Silver nitrate concentrate**38311-1EA**

Version 1.2

Revision Date 12/08/2021

Print Date 05/15/2023

SECTION 1. IDENTIFICATION

Product name : Silver nitrate concentrate

Number : 000000021833

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 or mixture : Corrosive to metals, Category 1
Skin corrosion, Category 1B
Serious eye damage, Category 1

GHS Label elements, including precautionary statements

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Symbol(s)

:



Signal word

: Danger

Hazard statements

: May be corrosive to metals.
Causes severe skin burns and eye damage.

Precautionary statements

: **Prevention:**
Keep only in original container.
Do not breathe dust or mist.
Wash skin thoroughly after handling.
Wear protective gloves/ protective clothing/ eye protection/ face protection.**Response:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

Specific treatment (see supplemental first aid instructions on this label).

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

Storage:

Store locked up.

Store in corrosive resistant stainless steel container with a resistant inner liner.

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

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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, IARC, or OSHA.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTSFormula : AgNO₃

Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
Water	7732-18-5	>=50.00 - <75.00 %
Silver nitrate	7761-88-8	>=25.00 - <50.00 %

SECTION 4. FIRST AID MEASURES

- General advice : First aider needs to protect himself. Move out of dangerous area. Immediately take off contaminated clothing and rinse body with plenty of water.
- 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.
- Skin contact : Wash off immediately with plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
- 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 : Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

Notes to physician

Most important : No information available.

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symptoms/effects, acute and
delayed

Indication of immediate : Treat symptomatically.
medical attention and
special treatment needed, if
necessary

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO₂)
Dry powder

Specific hazards during : The product itself does not burn.
firefighting Fire may cause evolution of:
Metal oxides
nitrogen oxides

Special protective equipment : Wear self-contained breathing apparatus and protective suit.
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 MEASURES

Personal precautions, : Evacuate personnel to safe areas.
protective equipment and : Wear personal protective equipment. Unprotected persons
emergency procedures : must be kept away.
Provide adequate ventilation.

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 : Use mechanical handling equipment.
containment and cleaning : Soak up with inert absorbent material.
up : Sweep up and shovel into suitable containers for disposal.
Dispose of in accordance with local regulations.

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SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe handling : Wear personal protective equipment.
Use only in well-ventilated areas.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.

Advice on protection against fire and explosion : The product itself does not burn.
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.

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.
Do not get in eyes, on skin, or on clothing.

Engineering measures : Use with local exhaust ventilation.

Eye protection : Safety goggles

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

Skin and body protection : Wear suitable protective equipment.
Wear as appropriate:
Protective suit

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

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Hygiene measures : Take off all contaminated clothing immediately.
 Remove and wash contaminated clothing before re-use.
 Keep working clothes separately.
 When using do not eat or drink.
 Wash hands before breaks and at the end of workday.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis
Silver nitrate	7761-88-8	TWA : Time weighted average	0.01 mg/m3	2008	ACGIH:US. ACGIH Threshold Limit Values, as amended
Further information	:	Expressed as : as Ag			

Silver nitrate	7761-88-8	REL : Recommended exposure limit (REL):	0.01 mg/m3	2016	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards, as amended
Further information	:	Form of exposure : Dust. Expressed as : as Ag			

Silver nitrate	7761-88-8	PEL : Permissible exposure limit	0.01 mg/m3	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended
Further information	:	Expressed as : as Ag			

Silver nitrate	7761-88-8	TWA : Time weighted average	0.01 mg/m3	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended
Further information	:	Expressed as : as Ag			

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Color	: colourless
Odor	: odourless
Odor threshold	: Note: No data available
pH	: Note: No data available
Melting point/range	: Note: No data available
Boiling point/boiling range	: > 100 °C
Flash point	: Note: Not applicable
Evaporation rate	: Note: No data available
Lower explosion limit	: Note: Not applicable
Upper explosion limit	: Note: Not applicable
Vapor pressure	: Note: No data available
Vapor density	: Note: No data available
Density	: Note: No data available
Water solubility	: Note: soluble

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Partition coefficient: n-octanol/water	: Note: No data available
Ignition temperature	: Note: Not applicable
Decomposition temperature	: Note: No decomposition if used as directed.
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	: 169.87 g/mol
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	: Hazardous polymerisation does not occur. Corrosive in contact with metals
Conditions to avoid	: Protect from heat/overheating. Exposure to light.
Incompatible materials	: Corrosive in contact with metals
Hazardous decomposition products	: nitrogen oxides Metal oxides

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SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50: > 5,110 mg/kg Species: Rat Method: OECD Test Guideline 401 Test substance: anhydrous substance
Acute inhalation toxicity	: Note: No data available
Acute dermal toxicity	: LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 402 Test substance: anhydrous substance
Skin irritation	: Species: reconstructed human epidermis (RhE) Result: Causes burns. Method: OECD Test Guideline 431 Test substance: anhydrous substance
Sensitisation	: Note: No data available
Genotoxicity in vitro	: Cell type: mouse lymphoma cells Metabolic activation: with metabolic activation Result: negative Method: OECD Test Guideline 476 Test substance: anhydrous substance : Cell type: mouse lymphoma cells Metabolic activation: without metabolic activation Result: positive Method: OECD Test Guideline 476 Test substance: anhydrous substance

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SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

- Toxicity to fish : semi-static test
LC50: 1.2 µg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)
Test substance: anhydrous substance
- : flow-through test
EC10: 0.17 µg/l
Exposure time: 196 d
Species: Oncorhynchus mykiss (rainbow trout)
Test substance: anhydrous substance
- Toxicity to daphnia and other aquatic invertebrates : semi-static test
LC50: 0.22 µg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test substance: anhydrous substance
- Toxicity to algae : flow-through test
EC10: 0.54 µg/l
Exposure time: 24 h
Species: Chlamydomonas reinhardtii
Test substance: anhydrous substance
- Toxicity to bacteria : static test
NOEC: 0.025 mg/l
Exposure time: 13.3 min
Species: Bacteria
Test substance: anhydrous substance
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : semi-static test
EC10: 6.48 µg/l
Exposure time: 7 d
Species: Ceriodaphnia dubia (water flea)
Test substance: anhydrous substance

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Elimination information (persistence and degradability)

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

Further information on ecology

Additional ecological information : Do not flush into surface water or sanitary sewer system.

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.
(silver nitrate, Solution)
Class : 8
Packing group : II
Hazard Labels : 8

IATA UN/ID No. : UN 3264
Description of the goods : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(silver nitrate, Solution)
Class : 8
Packaging group : II
Hazard Labels : 8
Packing instruction (cargo aircraft) : 855
Packing instruction (passenger aircraft) : 851
Packing instruction (passenger aircraft) : Y840

IMDG UN/ID No. : UN 3264
Description of the goods : CORROSIVE LIQUID, ACIDIC, INORGANIC,

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	N.O.S. (SILVER NITRATE, SOLUTION)
Class	: 8
Packaging group	: II
Hazard Labels	: 8
EmS Number	: F-A, S-B
Marine pollutant	: yes
IMDG Code segregation group	1 – ACIDS,

SECTION 15. REGULATORY INFORMATION**Inventories**

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemicals Act (AICC), as amended : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL

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

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

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

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

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

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National regulatory information

US. EPA CERCLA
Hazardous Substances (40
CFR 302) : The following component(s) of this product is/are subject to
release reporting under 40 CFR 302 when release exceeds the
Reportable Quantity (RQ):

Reportable quantity: 1 lbs
: Silver nitrate 7761-88-8

SARA 302 Components : No chemicals in this material are subject to the reporting
requirements of SARA Title III, Section 302.

SARA 313 Components : The following components are subject to reporting levels
established by SARA Title III, Section 313:
: Silver nitrate 7761-88-8

SARA 311/312 Hazards : Acute Health Hazard

**CERCLA Reportable
Quantity** : 3 lbs

California Prop. 65 : This product does not contain any chemicals known to State of
California to cause cancer, birth defects, or any other
reproductive harm.

Massachusetts RTK : Silver nitrate 7761-88-8

New Jersey RTK : Silver nitrate 7761-88-8

Pennsylvania RTK : Silver nitrate 7761-88-8

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 3	3
Flammability	: 0	0
Physical Hazard	: 0	
Instability	:	0

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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.

Previous Issue Date: 03/26/2017

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group