

# SAFETY DATA SHEET



F32042 0,1M Nitric acid FIX 1,00SA

**00000021906**

Version 1.0

Revision Date 02/03/2017

Print Date 05/22/2019

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Nitric acid concentrate

Number : 00000021906

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.  
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.  
Wash contaminated clothing before reuse.  
Absorb spillage to prevent material damage.

**Storage:**

Store locked up.  
Store in corrosive resistant container with a resistant inner liner.

**Disposal:**

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

**Carcinogenicity**

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 INGREDIENTS

Formula

: HNO<sub>3</sub>

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Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
Water	7732-18-5	>=70.00 - <90.00 %
Nitric acid	7697-37-2	>=10.00 - <20.00 %

## 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 immediately.
- Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician if irritation develops or persists.
- 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 : Rinse mouth with water. Do NOT induce vomiting. Call a physician immediately.

## SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder
- Specific hazards during firefighting : Some risk may be expected of corrosive and toxic decomposition products.  
Fire may cause evolution of:  
nitrogen oxides (NO<sub>x</sub>)

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Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.  
No unprotected exposed skin areas.

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
The product itself does not burn.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions : 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.  
Do not get in eyes, on skin, or on clothing.

Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Discharge into the environment must be avoided.  
Do not flush into surface water or sanitary sewer system.  
Prevent product from entering drains.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Methods for cleaning up : Use neutralizing agents.  
Soak up with inert absorbent material.  
Sweep up and shovel into suitable containers for disposal.  
Dispose of in accordance with local regulations.

**SECTION 7. HANDLING AND STORAGE****Handling**

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 : Normal measures for preventive fire protection.

**Storage**

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Requirements for storage areas and containers : Store in original container.  
 Keep containers tightly closed in a dry, cool and well-ventilated place.  
 Store away from incompatible substances.  
 Protect cylinders from physical damage.

**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  
 Face-shield

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

Skin and body protection : Wear suitable protective equipment.  
 Wear as appropriate:  
 acid-proof protective clothing

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

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

**Exposure Guidelines**

Components	CAS-No.	Value	Control parameters	Update	Basis
Nitric acid	7697-37-2	TWA : Time weighted average	(2 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values

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Nitric acid	7697-37-2	STEL : Short term exposure limit	(4 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
Nitric acid	7697-37-2	STEL : Short term exposure limit	10 mg/m3 (4 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Nitric acid	7697-37-2	REL : Recomm ended exposure limit (REL):	5 mg/m3 (2 ppm)	2005	NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards
Nitric acid	7697-37-2	PEL : Permissi ble exposure limit	5 mg/m3 (2 ppm)	02 2006	OSHA_TRANS:US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Nitric acid	7697-37-2	STEL : Short term exposure limit	10 mg/m3 (4 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)
Nitric acid	7697-37-2	TWA : Time weighted average	5 mg/m3 (2 ppm)	1989	Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state : liquid

Color : colourless

Odor : odourless

pH : Note: acidic

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Melting point/range : Note: no data available

Boiling point/boiling range : ca. 100 °C

Flash point : Note: Not applicable

Flammability : Not applicable

Lower explosion limit : Note: Not applicable

Upper explosion limit : Note: Not applicable

Vapor pressure : Note: similar to water

Density : 1.065 g/cm<sup>3</sup> 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

Decomposition temperature : Note: No decomposition if used as directed.

Molecular weight : 63.01 g/mol

Bulk density : Note: Not applicable

Corrosivity : Note: Corrosive to metals

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**SECTION 10. STABILITY AND REACTIVITY**

Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Gives off hydrogen by reaction with metals. Hazardous polymerisation does not occur.
Conditions to avoid	: Protect from contamination. Keep away from reducing agents. Protect from extreme heat and cold.
Incompatible materials to avoid	: Strong bases Metals
Hazardous decomposition products	: nitrogen oxides

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: Note: no data available Toxicity is determined by the corrosivity of the product.
Acute inhalation toxicity	: LC50: 2500 ppm Exposure time: 1 h Species: Rat Method: OECD Test Guideline 403 Note: anhydrous substance
Acute dermal toxicity	: Note: no data available Toxicity is determined by the corrosivity of the product.
Skin irritation	: Note: Classification based on Annex VI of regulation 1272/2008/EC.
Eye irritation	: Note: Classification based on Annex VI of regulation 1272/2008/EC.
Sensitisation	: Note: no data available



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Repeated dose toxicity : Note: Not classified due to data which are conclusive although insufficient for classification.

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

**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

**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 : The methods for determining biodegradability are not applicable to inorganic substances. Neutralisation will reduce ecotoxic effects.

**SECTION 13. DISPOSAL CONSIDERATIONS**

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

**SECTION 14. TRANSPORT INFORMATION**

DOT UN/ID No. : UN 2031  
Proper shipping name : NITRIC ACID

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Class	8
Packing group	II
Hazard Labels	8

**IATA**

UN/ID No.	: UN 2031
Description of the goods	: NITRIC ACID
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 2031
Description of the goods	: NITRIC ACID
Class	: 8
Packaging group	: II
Hazard Labels	: 8
EmS Number	: F-A, S-B
Marine pollutant	: no

## SECTION 15. REGULATORY INFORMATION

### Inventories

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : 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. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic : On the inventory, or in compliance with the inventory

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Substances and Hazardous  
and Nuclear Waste Control  
Act

China. Inventory of Existing Chemical Substances : 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

#### 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: 1000 lbs  
: Nitric acid 7697-37-2

**SARA 302 Components** : The following components are subject to reporting levels established by SARA Title III, Section 302:  
: Nitric acid 7697-37-2

**SARA 313 Components** : The following components are subject to reporting levels established by SARA Title III, Section 313:  
: Nitric acid 7697-37-2

**SARA 311/312 Hazards** : Acute Health Hazard

**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** : Nitric acid 7697-37-2

**New Jersey RTK** : Nitric acid 7697-37-2

**Pennsylvania RTK** : Nitric acid 7697-37-2

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**SECTION 16. OTHER INFORMATION**

	<b>HMIS III</b>	<b>NFPA</b>
Health hazard	: 3	3
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.

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group