

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/13/2024

Reviewed on 06/13/2024

## 1 Identification

- **Product identifier**
- **Trade name:** 15 Component Metals Standard  
1,000 ppm each in 10% HNO<sub>3</sub>
- **Article number:** VWR084
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson [shermann@aquasolutions.org](mailto:shermann@aquasolutions.org)
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Sensitization - Respiratory 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 Carcinogenicity 1B H350 May cause cancer.  
 Toxic to Reproduction 1B H360 May damage fertility or the unborn child.



GHS05 Corrosion

Skin Corrosion 1A H314 Causes severe skin burns and eye damage.  
 Eye Damage 1 H318 Causes serious eye damage.



GHS07

Sensitization - Skin 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05 GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
Nitric Acid

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**Trade name: 15 Component Metals Standard**  
**1,000 ppm each in 10% HNO3**

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cobalt

Nickel Metal

- **Hazard statements**

*Causes severe skin burns and eye damage.*

*May cause allergy or asthma symptoms or breathing difficulties if inhaled.*

*May cause an allergic skin reaction.*

*May cause cancer.*

*May damage fertility or the unborn child.*

- **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

*Contaminated work clothing must not be allowed out of the workplace.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*[In case of inadequate ventilation] wear respiratory protection.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep 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.*

*IF exposed or concerned: Get medical advice/attention.*

*Specific treatment (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*If experiencing respiratory symptoms: Call a poison center/doctor.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

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

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = \*3

Fire = 0

Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

## 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

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<b>· Dangerous components:</b>		
CAS: 7697-37-2	Nitric Acid	10.0%
CAS: 7440-02-0	Nickel Metal	0.1%
CAS: 7440-48-4	cobalt	0.1%
<b>· Table of Nonhazardous Ingredients</b>		
CAS: 7732-18-5	Water	88.5%
CAS: 7439-89-6	Iron Metal	0.1%
CAS: 7439-95-4	Magnesium	0.1%
CAS: 7439-98-7	Molybdenum Metal, 99.8%	0.1%
CAS: 7440-09-7	potassium	0.1%
CAS: 7440-23-5	sodium	0.1%
CAS: 7440-42-8	boron	0.1%
CAS: 7440-47-3	chromium	0.1%
CAS: 7440-50-8	copper	0.1%
CAS: 7440-62-2	vanadium	0.1%
CAS: 7440-66-6	Zinc Metal	0.1%
CAS: 7440-70-2	Calcium Metal	0.1%
CAS: 7723-14-0	red phosphorus	0.1%
CAS: 7783-20-2	Ammonium Sulfate	0.1%

## 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- **Protective Action Criteria for Chemicals**

- **PAC-1:**

CAS: 7697-37-2	Nitric Acid	0.16 ppm
CAS: 7439-89-6	Iron Metal	3.2 mg/m <sup>3</sup>
CAS: 7439-95-4	Magnesium	18 mg/m <sup>3</sup>
CAS: 7439-98-7	Molybdenum Metal, 99.8%	30 mg/m <sup>3</sup>
CAS: 7440-02-0	Nickel Metal	4.5 mg/m <sup>3</sup>
CAS: 7440-09-7	potassium	2.3 mg/m <sup>3</sup>
CAS: 7440-23-5	sodium	13 mg/m <sup>3</sup>
CAS: 7440-42-8	boron	1.9 mg/m <sup>3</sup>
CAS: 7440-47-3	chromium	1.5 mg/m <sup>3</sup>
CAS: 7440-48-4	cobalt	0.18 mg/m <sup>3</sup>
CAS: 7440-50-8	copper	3 mg/m <sup>3</sup>
CAS: 7440-62-2	vanadium	3 mg/m <sup>3</sup>
CAS: 7440-66-6	Zinc Metal	6 mg/m <sup>3</sup>
CAS: 7723-14-0	red phosphorus	0.27 mg/m <sup>3</sup>
CAS: 7783-20-2	Ammonium Sulfate	13 mg/m <sup>3</sup>

- **PAC-2:**

CAS: 7697-37-2	Nitric Acid	24 ppm
CAS: 7439-89-6	Iron Metal	35 mg/m <sup>3</sup>
CAS: 7439-95-4	Magnesium	200 mg/m <sup>3</sup>
CAS: 7439-98-7	Molybdenum Metal, 99.8%	330 mg/m <sup>3</sup>
CAS: 7440-02-0	Nickel Metal	50 mg/m <sup>3</sup>
CAS: 7440-09-7	potassium	25 mg/m <sup>3</sup>
CAS: 7440-23-5	sodium	140 mg/m <sup>3</sup>
CAS: 7440-42-8	boron	21 mg/m <sup>3</sup>
CAS: 7440-47-3	chromium	17 mg/m <sup>3</sup>
CAS: 7440-48-4	cobalt	2 mg/m <sup>3</sup>

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CAS: 7440-50-8	<i>copper</i>	33 mg/m <sup>3</sup>
CAS: 7440-62-2	<i>vanadium</i>	5.8 mg/m <sup>3</sup>
CAS: 7440-66-6	<i>Zinc Metal</i>	40 mg/m <sup>3</sup>
CAS: 7723-14-0	<i>red phosphorus</i>	3 mg/m <sup>3</sup>
CAS: 7783-20-2	<i>Ammonium Sulfate</i>	99 mg/m <sup>3</sup>
<b>· PAC-3:</b>		
CAS: 7697-37-2	<i>Nitric Acid</i>	92 ppm
CAS: 7439-89-6	<i>Iron Metal</i>	150 mg/m <sup>3</sup>
CAS: 7439-95-4	<i>Magnesium</i>	1,200 mg/m <sup>3</sup>
CAS: 7439-98-7	<i>Molybdenum Metal, 99.8%</i>	2,000 mg/m <sup>3</sup>
CAS: 7440-02-0	<i>Nickel Metal</i>	99 mg/m <sup>3</sup>
CAS: 7440-09-7	<i>potassium</i>	150 mg/m <sup>3</sup>
CAS: 7440-23-5	<i>sodium</i>	870 mg/m <sup>3</sup>
CAS: 7440-42-8	<i>boron</i>	130 mg/m <sup>3</sup>
CAS: 7440-47-3	<i>chromium</i>	99 mg/m <sup>3</sup>
CAS: 7440-48-4	<i>cobalt</i>	20 mg/m <sup>3</sup>
CAS: 7440-50-8	<i>copper</i>	200 mg/m <sup>3</sup>
CAS: 7440-62-2	<i>vanadium</i>	35 mg/m <sup>3</sup>
CAS: 7440-66-6	<i>Zinc Metal</i>	240 mg/m <sup>3</sup>
CAS: 7723-14-0	<i>red phosphorus</i>	18 mg/m <sup>3</sup>
CAS: 7783-20-2	<i>Ammonium Sulfate</i>	590 mg/m <sup>3</sup>

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
*Ensure good ventilation/exhaustion at the workplace.*  
*Open and handle receptacle with care.*  
*Prevent formation of aerosols.*
- **Information about protection against explosions and fires:** *Keep respiratory protective device available.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *No special requirements.*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep receptacle tightly sealed.*
- **Specific end use(s)** *No further relevant information available.*

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** *No further data; see section 7.*

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· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**CAS: 7697-37-2 Nitric Acid**

PEL Long-term value: 5 mg/m<sup>3</sup>, 2 ppm  
 REL Short-term value: 10 mg/m<sup>3</sup>, 4 ppm  
 Long-term value: 5 mg/m<sup>3</sup>, 2 ppm  
 TLV Short-term value: (4) NIC-0.025 ppm  
 Long-term value: (2) ppm  
 NIC-A4

**CAS: 7440-02-0 Nickel Metal**

PEL Long-term value: 1 mg/m<sup>3</sup>  
 REL Long-term value: 0.015 mg/m<sup>3</sup>  
 as Ni; See Pocket Guide App. A  
 TLV Long-term value: 1.5\* mg/m<sup>3</sup>  
 elemental, \*inhalable fraction, A5, BEI

**CAS: 7440-48-4 cobalt**

PEL Long-term value: 0.1\* mg/m<sup>3</sup>  
 as Co; \*for metal dust and fume  
 REL Long-term value: 0.05 mg/m<sup>3</sup>  
 as Co; metal dust & fume  
 TLV Long-term value: 0.02\* 0.005\*\* mg/m<sup>3</sup>  
 RSEN,DSEN,A3,BEI,\*\*thoracic particulates,A2

· **Ingredients with biological limit values:**

**CAS: 7440-02-0 Nickel Metal**

BEI 5 µg/L  
 LD50 Intraperitoneal: urine  
 Time: post-shift at end of workweek  
 LD50: Nickel (background)

30 µg/L  
 LD50 Intraperitoneal: urine  
 Time: post-shift at end of workweek  
 LD50: Nickel (background)

**CAS: 7440-48-4 cobalt**

BEI 15 µg/L  
 LD50 Intraperitoneal: urine  
 Time: end of shift at end of workweek  
 LD50: Cobalt (nonspecific)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid contact with the eyes.

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Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	83 °C (181.4 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

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· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure at 20 °C (68 °F):</b>	23 hPa (17.3 mm Hg)
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Water:</b>	88.5 %
<b>VOC content:</b>	0.00 %
	0.0 g/l / 0.00 lb/gal
<b>Solids content:</b>	1.4 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

### · Information on toxicological effects

#### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

**ATE (Acute Toxicity Estimate)**

Inhalative	LC50/4h	30 mg/l
------------	---------	---------

#### · Primary irritant effect:

· **on the skin:** Strong caustic effect on skin and mucous membranes.

#### · on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

#### · Sensitization:

Sensitization possible through inhalation.

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*Sensitization possible through skin contact.*

· **Additional toxicological information:**

*The product shows the following dangers according to internally approved calculation methods for preparations:*

*Harmful*

*Corrosive*

*Irritant*

*Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.*

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 7440-02-0	Nickel Metal	2B
CAS: 7440-47-3	chromium	3
CAS: 7440-48-4	cobalt	2A

· **NTP (National Toxicology Program)**

CAS: 7440-02-0	Nickel Metal	R
CAS: 7440-48-4	cobalt	R

· **OSHA-Ca (Occupational Safety & Health Administration)**

*None of the ingredients is listed.*

## 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** *No further relevant information available.*

· **Persistence and degradability:** *No further relevant information available.*

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** *No further relevant information available.*

· **Mobility in soil:** *No further relevant information available.*

· **Additional ecological information:**

· **General notes:**

*Water hazard class 3 (Self-assessment): extremely hazardous for water*

*Do not allow product to reach ground water, water course or sewage system, even in small quantities.*

*Must not reach bodies of water or drainage ditch undiluted or unneutralized.*

*Danger to drinking water if even extremely small quantities leak into the ground.*

· **Results of PBT and vPvB assessment**

· **PBT:** *Not applicable.*

· **vPvB:** *Not applicable.*

· **Other adverse effects:** *No further relevant information available.*

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

*Must not be disposed of together with household garbage. Do not allow product to reach sewage system.*

· **Uncleaned packagings:**

· **Recommendation:** *Disposal must be made according to official regulations.*

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· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## 14 Transport information

· **UN-Number**  
 · **DOT, IMDG, IATA**

UN3264

· **UN proper shipping name**  
 · **DOT**  
 · **IMDG, IATA**

Corrosive liquid, acidic, inorganic, n.o.s. (Nitric Acid)  
**CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric Acid)**

· **Transport hazard class(es)**

· **DOT**



· **Class**  
 · **Label**

8 Corrosive substances  
 8

· **IMDG, IATA**



· **Class**  
 · **Label**

8 Corrosive substances  
 8

· **Packing group**  
 · **DOT, IMDG, IATA**

II

· **Environmental hazards:**

Not applicable.

· **Special precautions for user**

Warning: Corrosive substances

· **Hazard identification number (Kemler code):** 80

· **EMS Number:**

F-A,S-B

· **Segregation groups**

(SGG1a) Strong acids

· **Stowage Category**

B

· **Stowage Code**

SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations**

On passenger aircraft/rail: 1 L  
 On cargo aircraft only: 30 L

· **IMDG**

· **Limited quantities (LQ)**

1L

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· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(NITRIC ACID), 8, II

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **Sara**· **Section 355 (extremely hazardous substances):**

CAS: 7697-37-2 Nitric Acid

CAS: 7723-14-0 red phosphorus

· **Section 313 (Specific toxic chemical listings):**

CAS: 7697-37-2 Nitric Acid

CAS: 7440-02-0 Nickel Metal

CAS: 7440-47-3 chromium

CAS: 7440-48-4 cobalt

CAS: 7440-50-8 copper

CAS: 7440-62-2 vanadium

CAS: 7440-66-6 Zinc Metal

CAS: 7723-14-0 red phosphorus

CAS: 7783-20-2 Ammonium Sulfate

· **TSCA (Toxic Substances Control Act):**

Water

ACTIVE

Nitric Acid

ACTIVE

Iron Metal

ACTIVE

Magnesium

ACTIVE

Molybdenum Metal, 99.8%

ACTIVE

Nickel Metal

ACTIVE

potassium

ACTIVE

sodium

ACTIVE

boron

ACTIVE

chromium

ACTIVE

cobalt

ACTIVE

copper

ACTIVE

vanadium

ACTIVE

Zinc Metal

ACTIVE

Calcium Metal

ACTIVE

red phosphorus

ACTIVE

Ammonium Sulfate

ACTIVE

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· **Hazardous Air Pollutants**

CAS: 7440-48-4 cobalt

CAS: 7723-14-0 red phosphorus

· **Proposition 65**

· **Chemicals known to cause cancer:**

CAS: 7440-02-0 Nickel Metal

CAS: 7440-48-4 cobalt

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 7440-42-8	boron	I (oral)
CAS: 7440-47-3	chromium	D
CAS: 7440-50-8	copper	D
CAS: 7440-66-6	Zinc Metal	D, I, II
CAS: 7723-14-0	red phosphorus	D

· **TLV (Threshold Limit Value)**

CAS: 7439-98-7	Molybdenum Metal, 99.8%	A3
CAS: 7440-02-0	Nickel Metal	A5
CAS: 7440-47-3	chromium	A4
CAS: 7440-48-4	cobalt	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

CAS: 7440-02-0 Nickel Metal

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Nitric Acid

cobalt

Nickel Metal

· **Hazard statements**

Causes severe skin burns and eye damage.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause cancer.

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*May damage fertility or the unborn child.*

· **Precautionary statements**

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*Do not breathe dusts or mists.*

*Wash thoroughly after handling.*

*Contaminated work clothing must not be allowed out of the workplace.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*[In case of inadequate ventilation] wear respiratory protection.*

*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep 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.*

*IF exposed or concerned: Get medical advice/attention.*

*Specific treatment (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*If experiencing respiratory symptoms: Call a poison center/doctor.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

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

· **National regulations:**

· **Information about limitation of use:**

*Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.*

*Exceptions can be made by the authorities in certain cases.*

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing SDS:** Environment protection department.

· **Contact:**

*Date of Preparation / Last Revision:*

· **Date of preparation / last revision**

*Revision 1.2, 06/13/2024: Reviewed SDS for accuracy. MH/STN  
06/13/2024 / 1.1*

· **Abbreviations and acronyms:**

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMIS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

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**Safety Data Sheet**  
**acc. to OSHA HCS**

Printing date 06/13/2024

Reviewed on 06/13/2024

**Trade name: 15 Component Metals Standard**  
**1,000 ppm each in 10% HNO<sub>3</sub>**

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*PEL: Permissible Exposure Limit**REL: Recommended Exposure Limit**BEI: Biological Exposure Limit**Skin Corrosion 1A: Skin corrosion/irritation – Category 1A**Eye Damage 1: Serious eye damage/eye irritation – Category 1**Sensitization - Respiratory 1: Respiratory sensitisation – Category 1**Sensitization - Skin 1: Skin sensitisation – Category 1**Carcinogenicity 1B: Carcinogenicity – Category 1B**Toxic to Reproduction 1B: Reproductive toxicity – Category 1B***· \* Data compared to the previous version altered.**

US