

1 Identification

· Product identifier

· **Product Name:** Interference Check Standard, 18

· Part Name:

INTER18-100
INTER18-100N
INTER18-500
INTER18-500N

· **Application of the substance / the mixture** For Laboratory Use Only

· **Uses advised against** Not for Human or Animal Use

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Spex CertiPrep, LLC.
203 Norcross Ave, Metuchen,
NJ 08840 USA
732-549-7144
USMet-CRMSales@antylia.com

· **Information department:** product safety department

· Emergency telephone number:

Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carcinogenicity 1A H350 May cause cancer.

Toxic to Reproduction 1A 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.

· 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
arsenic
lead

· Hazard statements

H314 Causes severe skin burns and eye damage.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

· Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dusts or mists.

P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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- P310 Immediately call a poison center/doctor.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P321 Specific treatment (see on this label).
- P363 Wash contaminated clothing before reuse.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **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.

· **Dangerous components:**

7697-37-2	nitric acid	5.0%
7440-09-7	potassium	2.0%
7439-92-1	lead	0.1%
7440-28-0	thallium	0.1%
7440-38-2	arsenic	0.1%

· **Chemical identification of the substance/preparation**

7732-18-5	water, distilled, conductivity or of similar purity	92.35%
7782-49-2	selenium	0.05%
7440-02-0	nickel	0.03%
7440-22-4	silver	0.03%
7440-39-3	barium	0.03%
7440-43-9	cadmium	0.03%
7440-47-3	chromium	0.03%
7440-48-4	cobalt	0.03%
7440-50-8	copper	0.03%
7440-62-2	vanadium	0.03%
7440-66-6	zinc	0.03%
7439-96-5	manganese	0.02%
7440-41-7	beryllium	0.01%

4 First-aid measures

· **Description of first aid measures**

· **General information:** Immediately remove any clothing soiled by the product.

· **After inhalation:** 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.

Do not give anything to eat or drink - Do not induce vomiting

· **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.

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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.

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:

7697-37-2	nitric acid	0.16 ppm
7440-09-7	potassium	2.3 mg/m ³
7439-92-1	lead	0.15 mg/m ³
7440-28-0	thallium	0.06 mg/m ³
7440-38-2	arsenic	1.5 mg/m ³
7782-49-2	selenium	0.6 mg/m ³
7440-02-0	nickel	4.5 mg/m ³
7440-22-4	silver	0.3 mg/m ³
7440-39-3	barium	1.5 mg/m ³
7440-43-9	cadmium	0.10 mg/m ³
7440-47-3	chromium	1.5 mg/m ³
7440-48-4	cobalt	0.18 mg/m ³
7440-50-8	copper	3 mg/m ³
7440-62-2	vanadium	3 mg/m ³
7440-66-6	zinc	6 mg/m ³
7439-96-5	manganese	3 mg/m ³
7440-41-7	beryllium	0.0023 mg/m ³

· PAC-2:

7697-37-2	nitric acid	24 ppm
7440-09-7	potassium	25 mg/m ³
7439-92-1	lead	120 mg/m ³
7440-28-0	thallium	3.3 mg/m ³
7440-38-2	arsenic	17 mg/m ³
7782-49-2	selenium	6.6 mg/m ³
7440-02-0	nickel	50 mg/m ³
7440-22-4	silver	170 mg/m ³
7440-39-3	barium	180 mg/m ³
7440-43-9	cadmium	0.76 mg/m ³
7440-47-3	chromium	17 mg/m ³
7440-48-4	cobalt	2 mg/m ³
7440-50-8	copper	33 mg/m ³
7440-62-2	vanadium	5.8 mg/m ³
7440-66-6	zinc	21 mg/m ³

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7439-96-5	manganese	5 mg/m ³
7440-41-7	beryllium	0.025 mg/m ³
· PAC-3:		
7697-37-2	nitric acid	92 ppm
7440-09-7	potassium	150 mg/m ³
7439-92-1	lead	700 mg/m ³
7440-28-0	thallium	20 mg/m ³
7440-38-2	arsenic	100 mg/m ³
7782-49-2	selenium	40 mg/m ³
7440-02-0	nickel	99 mg/m ³
7440-22-4	silver	990 mg/m ³
7440-39-3	barium	1,100 mg/m ³
7440-43-9	cadmium	4.7 mg/m ³
7440-47-3	chromium	99 mg/m ³
7440-48-4	cobalt	20 mg/m ³
7440-50-8	copper	200 mg/m ³
7440-62-2	vanadium	35 mg/m ³
7440-66-6	zinc	120 mg/m ³
7439-96-5	manganese	1,800 mg/m ³
7440-41-7	beryllium	0.1 mg/m ³

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.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

7439-92-1 lead	
PEL	Long-term value: 0.05* mg/m ³ *see 29 CFR 1910.1025
REL	Long-term value: 0.05* mg/m ³ *8-hr TWA ;See PocketGuide App.C
TLV	Long-term value: 0.05* mg/m ³ *and inorganic compds., as Pb; BEI, A3
7440-28-0 thallium	
PEL	Long-term value: 0.1 mg/m ³ as Tl; Skin
REL	Long-term value: 0.1 mg/m ³ as Tl; Skin
TLV	Long-term value: 0.02* mg/m ³ as Tl; *inhalable fraction; Skin
7440-38-2 arsenic	
PEL	Long-term value: 0.5* 0.01** mg/m ³ as As; *organic**inorg. compds.; 29 CFR 1910.1018

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REL	Ceiling limit value: 0.002 mg/m ³ as As; 15min; See Pocket Guide App. A
TLV	Long-term value: 0.01 mg/m ³ as As; BEI, AI

Ingredients with biological limit values:

7439-92-1 lead

BEI 200 µg/L
Medium: blood
Time: not critical
Parameter: Lead

7440-38-2 arsenic

BEI 35 µg As/L
Medium: urine
Time: end of workweek
Parameter: Inorganic arsenic plus methylated metabolites (background)

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.
Avoid contact with the eyes and skin.

Respiratory protection:

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

9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

Form: Liquid
Color: According to product specification
Odor: Characteristic
Odour Threshold: Not applicable.

pH-value at 20 °C (68 °F): <2

Change in condition

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

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.

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· Decomposition temperature:	Not applicable.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not applicable. Not applicable.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F)	1.0698 g/cm ³ (8.92748 lbs/gal)
· Relative density	Not applicable.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not applicable.
· Viscosity: Dynamic: Kinematic:	Not applicable. Not applicable.
· Solvent content: Water: VOC content:	92.4 % 0.00 %
· Solids content:	2.6 %
· Other information	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:		
7697-37-2 nitric acid		
Inhalative	LC50/4 h	2.65 mg/l (ATE)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Irritant
Product is suspected to cause damage to fertility.
Product is suspected to cause birth defects.
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)		
7439-92-1	lead	2B
7440-38-2	arsenic	1
7782-49-2	selenium	3
7440-02-0	nickel	2B
7440-43-9	cadmium	1

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7440-47-3	chromium	3
7440-48-4	cobalt	2B
7440-41-7	beryllium	1
· NTP (National Toxicology Program)		
7439-92-1	lead	R
7440-38-2	arsenic	K
7440-02-0	nickel	R
7440-43-9	cadmium	K
7440-48-4	cobalt	R
7440-41-7	beryllium	K
· OSHA-Ca (Occupational Safety & Health Administration)		
7440-38-2	arsenic	
7440-43-9	cadmium	

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 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.
Danger to drinking water if even small quantities leak into the ground.
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **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.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, ADR, IMDG, IATA	UN3264
· UN proper shipping name	
· DOT	Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid)
· ADR	3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
· IMDG, IATA	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID)
· Transport hazard class(es)	
· DOT	
	
· Class	8 Corrosive substances

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· Label	8
· ADR, IMDG, IATA	
	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, ADR, IMDG, IATA	III
· 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	(SGG1) Acids
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· Segregation Code	SG36 Stow "separated from" SGG18-alkalis. SG49 Stow "separated from" SGG6-cyanides
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID), 8, III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 313 (Specific toxic chemical listings):	
7697-37-2	nitric acid
7439-92-1	lead
7440-28-0	thallium
7440-38-2	arsenic
7782-49-2	selenium
7440-02-0	nickel
7440-22-4	silver
7440-39-3	barium
7440-43-9	cadmium
7440-47-3	chromium
7440-48-4	cobalt
7440-50-8	copper
7440-62-2	vanadium
7440-66-6	zinc
7439-96-5	manganese
7440-41-7	beryllium
· TSCA (Toxic Substances Control Act):	
	All components have the value ACTIVE.
· Hazardous Air Pollutants	
7439-92-1	lead

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7440-48-4	cobalt
7439-96-5	manganese

· **Proposition 65**

· **Chemicals known to cause cancer:**

7439-92-1	lead
7440-38-2	arsenic
7440-02-0	nickel
7440-43-9	cadmium
7440-48-4	cobalt
7440-41-7	beryllium

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

None of the ingredients is listed.

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

7440-43-9	cadmium
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· **Chemicals known to cause developmental toxicity:**

7440-43-9	cadmium
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· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

7439-92-1	lead	B2
7440-38-2	arsenic	A
7782-49-2	selenium	D
7440-22-4	silver	D
7440-39-3	barium	D, CBD(inh), NL(oral)
7440-43-9	cadmium	B1
7440-50-8	copper	D
7440-66-6	zinc	D, I, II
7439-96-5	manganese	D
7440-41-7	beryllium	B1, K/L(inh), CBD(oral)

· **TLV (Threshold Limit Value)**

7439-92-1	lead	A3
7440-38-2	arsenic	A1
7440-02-0	nickel	A5
7440-39-3	barium	A4
7440-43-9	cadmium	A2
7440-48-4	cobalt	A3

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

7440-38-2	arsenic
7440-02-0	nickel
7440-43-9	cadmium

· **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

arsenic

lead

· **Hazard statements**

H314 Causes severe skin burns and eye damage.

H350 May cause cancer.

H360 May damage fertility or the unborn child.

· **Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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P260 Do not breathe dusts or mists.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
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 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P321 Specific treatment (see on this label).
P363 Wash contaminated clothing before reuse.
P405 Store locked up.
P501 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:** product safety department

· **Contact:**

Spex CertiPrep, LLC.
1-732-549-7144

· **Date of preparation / last revision** 09/06/2023

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
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
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
Carcinogenicity 1A: Carcinogenicity – Category 1A
Toxic to Reproduction 1A: Reproductive toxicity – Category 1A