

SAFETY DATA SHEET



ICV-7 Quality Control Standard, Part Number 190064900

Section 1. Identification

Product identifier : ICV-7 Quality Control Standard, Part Number 190064900
Part no. (chemical kit) : 190064900
Part no. : Initial calibration verification standard part 190064900A
 A
 Initial calibration verification standard part 190064900B
 B

Relevant identified uses of the substance or mixture and uses advised against

Material uses : Reagents and Standards for Analytical Chemistry Laboratory Use
 2 x 500 ml
 Initial calibration verification standard part 500 ml
 A
 Initial calibration verification standard part 500 ml
 B

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Initial calibration verification standard part A
 H290 CORROSIVE TO METALS - Category 1
 H314 SKIN CORROSION/IRRITATION - Category 1
 H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1

Initial calibration verification standard part B
 H290 CORROSIVE TO METALS - Category 1
 H314 SKIN CORROSION/IRRITATION - Category 1
 H318 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
 H350 CARCINOGENICITY - Category 1A
 H400 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
 H410 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1

Initial calibration verification standard part A Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%
 Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%
 Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%
 Initial calibration verification standard part A Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%

GHS label elements

Section 2. Hazard(s) identification

Hazard pictograms	: Initial calibration verification standard part A	
	Initial calibration verification standard part B	
Signal word	: Initial calibration verification standard part A	DANGER
	Initial calibration verification standard part B	DANGER
Hazard statements	: Initial calibration verification standard part A	<p>H290 - May be corrosive to metals.</p> <p>H314 - Causes severe skin burns and eye damage.</p>
	Initial calibration verification standard part B	<p>H290 - May be corrosive to metals.</p> <p>H314 - Causes severe skin burns and eye damage.</p> <p>H350 - May cause cancer.</p> <p>H410 - Very toxic to aquatic life with long lasting effects.</p>
Precautionary statements		
Prevention	: Initial calibration verification standard part A	<p>P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.</p> <p>P234 - Keep only in original container.</p> <p>P264 - Wash hands thoroughly after handling.</p>
	Initial calibration verification standard part B	<p>P201 - Obtain special instructions before use.</p> <p>P202 - Do not handle until all safety precautions have been read and understood.</p> <p>P281 - Use personal protective equipment as required.</p> <p>P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.</p> <p>P234 - Keep only in original container.</p> <p>P273 - Avoid release to the environment.</p> <p>P264 - Wash hands thoroughly after handling.</p>
Response	: Initial calibration verification standard part A	<p>P390 - Absorb spillage to prevent material damage.</p> <p>P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.</p> <p>P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.</p> <p>P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.</p> <p>P305 + P351 + P338 + P310 - 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 or physician.</p>
	Initial calibration verification standard part B	<p>P391 - Collect spillage.</p> <p>P308 + P313 - IF exposed or concerned: Get medical attention.</p>

Section 2. Hazard(s) identification

P304 + P340 + P310 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
 P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
 P305 + P351 + P338 + P310 - 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 or physician.

Storage : Initial calibration verification standard part A
 Initial calibration verification standard part B

P405 - Store locked up.
 P406 - Store in corrosive resistant container with a resistant inner liner.
 P405 - Store locked up.
 P406 - Store in corrosive resistant container with a resistant inner liner.

Disposal : Initial calibration verification standard part A
 Initial calibration verification standard part B

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
 P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Additional warning phrases : Initial calibration verification standard part A
 Initial calibration verification standard part B

Not applicable.
 Not applicable.

Other hazards which do not result in classification : Initial calibration verification standard part A
 Initial calibration verification standard part B

Causes digestive tract burns.
 Causes digestive tract burns.

Section 3. Composition and ingredient information

Substance/mixture : Initial calibration verification standard part A Mixture
 Initial calibration verification standard part B Mixture

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Initial calibration verification standard part A		
nitric acid	≥10 - ≤30	7697-37-2
Calcium carbonate	≤3	471-34-1
Sodium carbonate	≤3	497-19-8
Potassium carbonate	≤3	584-08-7
Initial calibration verification standard part B		
nitric acid	≥10 - ≤30	7697-37-2

Section 3. Composition and ingredient information

Diarsenic trioxide	≤0.3	1327-53-3
Lead	<0.3	7439-92-1
Silver	≤0.3	7440-22-4
Cadmium	≤0.3	7440-43-9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Initial calibration verification standard part A	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
	Initial calibration verification standard part B	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Inhalation	: Initial calibration verification standard part A	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	Initial calibration verification standard part B	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

Skin contact	: Initial calibration verification standard part A	Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Initial calibration verification standard part B	Get medical attention immediately. Call a poison center or physician. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Initial calibration verification standard part A	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Initial calibration verification standard part B	Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Initial calibration verification standard part A	Causes serious eye damage.
	Initial calibration verification standard part B	Causes serious eye damage.
Inhalation	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	Initial calibration verification standard part B	No known significant effects or critical hazards.

Section 4. First aid measures

Skin contact	: Initial calibration verification standard part A	Causes severe burns.
	: Initial calibration verification standard part B	Causes severe burns.
Ingestion	: Initial calibration verification standard part A	Corrosive to the digestive tract. Causes burns.
	: Initial calibration verification standard part B	Corrosive to the digestive tract. Causes burns.
<u>Over-exposure signs/symptoms</u>		
Eye contact	: Initial calibration verification standard part A	Adverse symptoms may include the following: pain watering redness
	: Initial calibration verification standard part B	Adverse symptoms may include the following: pain watering redness
Inhalation	: Initial calibration verification standard part A	No specific data.
	: Initial calibration verification standard part B	No specific data.
Skin contact	: Initial calibration verification standard part A	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	: Initial calibration verification standard part B	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Initial calibration verification standard part A	Adverse symptoms may include the following: stomach pains
	: Initial calibration verification standard part B	Adverse symptoms may include the following: stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	: Initial calibration verification standard part A	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
	: Initial calibration verification standard part B	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: Initial calibration verification standard part A	No specific treatment.
	: Initial calibration verification standard part B	No specific treatment.

Section 4. First aid measures

Protection of first-aiders	: Initial calibration verification standard part A	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Initial calibration verification standard part B	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

Suitable extinguishing media	: Initial calibration verification standard part A Initial calibration verification standard part B	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Initial calibration verification standard part A Initial calibration verification standard part B	None known. None known.
Specific hazards arising from the chemical	: Initial calibration verification standard part A Initial calibration verification standard part B	In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Initial calibration verification standard part A Initial calibration verification standard part B	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides Decomposition products may include the following materials: nitrogen oxides
Special protective actions for fire-fighters	: Initial calibration verification standard part A Initial calibration verification standard part B	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 5. Firefighting measures

Special protective equipment for fire-fighters	: Initial calibration verification standard part A	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Initial calibration verification standard part B	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	: Initial calibration verification standard part A	2X
	Initial calibration verification standard part B	2X

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Initial calibration verification standard part A	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Initial calibration verification standard part B	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: Initial calibration verification standard part A	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Initial calibration verification standard part B	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Initial calibration verification standard part A	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
	Initial calibration verification standard part B	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material for containment and cleaning up

Section 6. Accidental release measures

Methods for cleaning up	: Initial calibration verification standard part A	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
	Initial calibration verification standard part B	Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Initial calibration verification standard part A	Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
	Initial calibration verification standard part B	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
Advice on general occupational hygiene	: Initial calibration verification standard part A	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Initial calibration verification standard part B	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Initial calibration verification standard part A

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Initial calibration verification standard part B

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in corrosive resistant container with a resistant inner liner. Store locked up. Separate from alkalis. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Ingredient name	Exposure limits
<p>Initial calibration verification standard part A nitric acid</p> <p>Calcium carbonate</p>	<p>Safe Work Australia (Australia, 1/2014). STEL: 10 mg/m³ 15 minutes. STEL: 4 ppm 15 minutes. TWA: 5.2 mg/m³ 8 hours. TWA: 2 ppm 8 hours.</p> <p>Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m³ 8 hours.</p>
<p>Initial calibration verification standard part B nitric acid</p> <p>Diarsenic trioxide</p> <p>Lead</p> <p>Silver</p> <p>Cadmium</p>	<p>Safe Work Australia (Australia, 1/2014). STEL: 10 mg/m³ 15 minutes. STEL: 4 ppm 15 minutes. TWA: 5.2 mg/m³ 8 hours. TWA: 2 ppm 8 hours.</p> <p>ACGIH TLV (United States, 3/2017). TWA: 0.01 mg/m³, (as As) 8 hours.</p> <p>Safe Work Australia (Australia, 1/2014). TWA: 0.15 mg/m³, (as Pb) 8 hours. Form: Dust and fumes</p> <p>Safe Work Australia (Australia, 1/2014). TWA: 0.1 mg/m³ 8 hours.</p> <p>Safe Work Australia (Australia, 1/2014). TWA: 0.01 mg/m³, (as Cd) 8 hours.</p>

Section 8. Exposure controls and personal protection

- Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Initial calibration verification standard part A Liquid. [Clear.]
Initial calibration verification standard part B Liquid. [Clear.]
- Colour** : Initial calibration verification standard part A Light
Initial calibration verification standard part B Light
- Odour** : Initial calibration verification standard part A Odourless.
Initial calibration verification standard part B Odourless.
- Odour threshold** : Initial calibration verification standard part A Not available.
Initial calibration verification standard part B Not available.
- pH** :

Section 9. Physical and chemical properties

	Initial calibration verification standard part A	<2
	Initial calibration verification standard part B	<2
Melting point	: Initial calibration verification standard part A	0°C (32°F)
	Initial calibration verification standard part B	0°C (32°F)
Boiling point	: Initial calibration verification standard part A	100°C (212°F)
	Initial calibration verification standard part B	100°C (212°F)
Flash point	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Evaporation rate	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Flammability (solid, gas)	: Initial calibration verification standard part A	Not applicable.
	Initial calibration verification standard part B	Not applicable.
Lower and upper explosive (flammable) limits	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Vapour pressure	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Vapour density	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Relative density	: Initial calibration verification standard part A	1
	Initial calibration verification standard part B	1
Solubility	: Initial calibration verification standard part A	Easily soluble in the following materials: cold water and hot water.
	Initial calibration verification standard part B	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Auto-ignition temperature	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Decomposition temperature	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.
Viscosity	: Initial calibration verification standard part A	Not available.
	Initial calibration verification standard part B	Not available.

Section 10. Stability and reactivity

Reactivity	: Initial calibration verification standard part A Initial calibration verification standard part B	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: Initial calibration verification standard part A Initial calibration verification standard part B	The product is stable. The product is stable.
Possibility of hazardous reactions	: Initial calibration verification standard part A Initial calibration verification standard part B	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Initial calibration verification standard part A Initial calibration verification standard part B	No specific data. No specific data.
Incompatible materials	: Initial calibration verification standard part A Initial calibration verification standard part B	Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Reactive or incompatible with the following materials: alkalis metals
Hazardous decomposition products	: Initial calibration verification standard part A Initial calibration verification standard part B	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Initial calibration verification standard part A				
nitric acid	LC50 Inhalation Vapour	Rat	2500 ppm	1 hours
	LC50 Inhalation Vapour	Rat	130 mg/m ³	4 hours
Calcium carbonate	LD50 Oral	Rat	6450 mg/kg	-
Sodium carbonate	LD50 Oral	Rat	4090 mg/kg	-
Potassium carbonate	LD50 Oral	Rat	1870 mg/kg	-
Initial calibration verification standard part B				
nitric acid	LC50 Inhalation Vapour	Rat	2500 ppm	1 hours
	LC50 Inhalation Vapour	Rat	130 mg/m ³	4 hours

Section 11. Toxicological information

Diarsenic trioxide	LD50 Oral	Rat	10 mg/kg	-
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Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Initial calibration verification standard part A					
Sodium carbonate	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 100 milligrams	-
				24 hours 500 milligrams	-
Initial calibration verification standard part B					
Silver	Skin - Erythema/Eschar	Rabbit	0.33	-	24 to 48 hours
	Eyes - Redness of the conjunctivae	Rabbit	1	-	72 hours

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Initial calibration verification standard part A			
Sodium carbonate	Category 3	Not applicable.	Respiratory tract irritation
Potassium carbonate	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Initial calibration verification standard part B			
Diarsenic trioxide	Category 1	Not determined	Not determined
Lead	Category 2	Not determined	Not determined
Cadmium	Category 1	Not determined	Not determined

Aspiration hazard

Not available.

Information on likely routes of exposure : Initial calibration verification standard part A Routes of entry anticipated: Oral, Dermal, Inhalation.
Initial calibration verification standard part B Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Section 11. Toxicological information

Eye contact	: Initial calibration verification standard part A	Causes serious eye damage.
	: Initial calibration verification standard part B	Causes serious eye damage.
Inhalation	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	No known significant effects or critical hazards.
Skin contact	: Initial calibration verification standard part A	Causes severe burns.
	: Initial calibration verification standard part B	Causes severe burns.
Ingestion	: Initial calibration verification standard part A	Corrosive to the digestive tract. Causes burns.
	: Initial calibration verification standard part B	Corrosive to the digestive tract. Causes burns.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Initial calibration verification standard part A	Adverse symptoms may include the following: pain watering redness
	: Initial calibration verification standard part B	Adverse symptoms may include the following: pain watering redness
Inhalation	: Initial calibration verification standard part A	No specific data.
	: Initial calibration verification standard part B	No specific data.
Skin contact	: Initial calibration verification standard part A	Adverse symptoms may include the following: pain or irritation redness blistering may occur
	: Initial calibration verification standard part B	Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Initial calibration verification standard part A	Adverse symptoms may include the following: stomach pains
	: Initial calibration verification standard part B	Adverse symptoms may include the following: stomach pains

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Section 11. Toxicological information

Potential chronic health effects

General	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	No known significant effects or critical hazards.
Carcinogenicity	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	No known significant effects or critical hazards.
Teratogenicity	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	No known significant effects or critical hazards.
Developmental effects	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	No known significant effects or critical hazards.
Fertility effects	: Initial calibration verification standard part A	No known significant effects or critical hazards.
	: Initial calibration verification standard part B	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information	: Initial calibration verification standard part A	Not available.
	: Initial calibration verification standard part B	Adverse symptoms may include the following: Sensitisation (Respiratory / Skin).

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Initial calibration verification standard part A nitric acid	Acute LC50 180000 µg/l Marine water	Crustaceans - Carcinus maenas - Adult	48 hours
Calcium carbonate	Acute LC50 72 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 >100 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 >56000 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Chronic NOEC 61 mg/g Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	28 days
Sodium carbonate	Acute EC50 242000 µg/l Fresh water	Algae - Navicula seminulum	96 hours
	Acute LC50 176000 µg/l Fresh water	Crustaceans - Amphipoda	48 hours
	Acute LC50 265000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 300000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
Potassium carbonate	Acute LC50 630 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 650 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Section 12. Ecological information

Initial calibration verification standard part B nitric acid	Acute LC50 180000 µg/l Marine water	Crustaceans - Carcinus maenas - Adult	48 hours
Diarsenic trioxide	Acute LC50 72 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute EC50 34.7 mg/l Fresh water	Algae - Scenedesmus subspicatus	72 hours
	Acute EC50 2.5 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 3380 µg/l Marine water	Fish - Terapon jarbua - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic EC10 9.4 mg/l Fresh water	Algae - Scenedesmus subspicatus	72 hours
	Chronic IC10 1.3 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
Lead	Acute EC50 105 ppb Marine water	Algae - Chaetoceros sp. - Exponential growth phase	72 hours
	Acute EC50 0.489 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 8000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute LC50 530 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 0.594 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.44 ppm Fresh water	Fish - Cyprinus carpio - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
Silver	Chronic NOEC 0.25 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.03 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
	Acute EC50 1.4 µg/l Marine water	Algae - Chroomonas sp.	4 days
	Acute EC50 0.24 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 11 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 2.13 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Cadmium	Chronic NOEC 5 mg/l Marine water	Algae - Glenodinium halli	72 hours
	Acute EC50 97 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 0.095 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 200 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 13.5 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
Acute LC50 1 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours	
Chronic NOEC 2 µg/l Fresh water	Algae - Parachlorella kessleri - Exponential growth phase	72 hours	
Chronic NOEC 0.02 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks	

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Initial calibration verification standard part A nitric acid	-	-	Readily
Initial calibration verification standard part B nitric acid	-	-	Readily

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
<input checked="" type="checkbox"/> Initial calibration verification standard part A nitric acid	-0.21	-	low
Initial calibration verification standard part B nitric acid	-0.21	-	low
Diarsenic trioxide	-	0.143	low
Silver	-	70	low

Mobility in soil





Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN3264	UN3264	UN3264
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (nitric acid)	<input checked="" type="checkbox"/> Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)
Transport hazard class(es)	8 	8  	8 
Packing group	III	III	III
Environmental hazards	<input checked="" type="checkbox"/> Yes. The environmentally hazardous substance mark is not required.	Yes.	<input checked="" type="checkbox"/> Yes. The environmentally hazardous substance mark is not required.

Additional information

ADG : **Hazchem code** 2X
Special provisions 223, 274

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-A, S-B
Special provisions 223, 274

Section 14. Transport information

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 5 L. Packaging instructions: 852. Cargo Aircraft Only: 60 L. Packaging instructions: 856. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y841.
Special provisions A3, A803

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

7, 6, 5

Model Work Health and Safety Regulations - Scheduled Substances

<u>Ingredient name</u>	<u>Schedule</u>
Initial calibration verification standard part A barium salts with the exception of barium sulphate, salts of 1-azo-2-hydroxynaphthalenyl aryl sulphonic acid, and of salts specified elsewhere in this database	Restricted hazardous chemical [For wet abrasive blasting]
Aluminum(III) nitrate, nonahydrate (1:3:9)	Restricted hazardous chemical [For wet abrasive blasting]
Chromium(III) nitrate, nonahydrate (1:3:9)	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.5% (except as specified for wet blasting) as chromium]
Initial calibration verification standard part B Manganese dinitrate	Restricted hazardous chemical [For wet abrasive blasting]
antimony trioxide	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as antimony]
Arsenic trioxide	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as arsenic; For spray painting]
lead compounds with the exception of those specified elsewhere in this database	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as lead or which would expose the operator to levels in excess of those set in the regulations covering lead]
nickel powder [particle diameter < 1 mm]	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as nickel]
beryllium	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as beryllium]
cadmium (non-pyrophoric)	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as cadmium]
cobalt	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.1% as cobalt]

Section 15. Regulatory information

Chromium(III) nitrate, nonahydrate (1:3:9)

Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 0.5% (except as specified for wet blasting) as chromium]

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Ingredient name	List name	Status
Initial calibration verification standard part B		
Lead (Pb)	Heavy metals - Annex 1	Listed
Cadmium (Cd)	Heavy metals - Annex 1	Listed

Inventory list

Australia	: All components are listed or exempted.
Canada	: All components are listed or exempted.
China	: All components are listed or exempted.
Europe	: All components are listed or exempted.
Japan	: Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted.
Malaysia	: Not determined.
New Zealand	: All components are listed or exempted.
Philippines	: Not determined.
Republic of Korea	: All components are listed or exempted.
Taiwan	: All components are listed or exempted.
Thailand	: <input checked="" type="checkbox"/> Not determined.
Turkey	: Not determined.
United States	: All components are listed or exempted.
Viet Nam	: <input checked="" type="checkbox"/> Not determined.

Section 16. Any other relevant information

History

Date of issue/Date of revision : 25/04/2018

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Version : 4

Key to abbreviations

: ADG = Australian Dangerous Goods
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships,

Section 16. Any other relevant information

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 NOHSC = National Occupational Health and Safety Commission
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
Initial calibration verification standard part A Met. Corr. 1, H290 Skin Corr. 1, H314 Eye Dam. 1, H318 Initial calibration verification standard part B Met. Corr. 1, H290 Skin Corr. 1, H314 Eye Dam. 1, H318 Carc. 1A, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Expert judgment On basis of test data On basis of test data Expert judgment On basis of test data On basis of test data Calculation method Calculation method Calculation method

References : Not available.

Indicates information that has changed from previously issued version.

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