# **SAFETY DATA SHEET**



OQ - PV Chemicals Standards Kit 1, Part Number 5063-6503

## **Section 1. Identification**

#### **1.1 Product identifier**

Product name : OQ - PV Chemicals Standards Kit 1, Part Number 5063-6503

Part no. (chemical kit) : 5063-6503

Part no. : Mexane Solvent Blank 5063-6503-4

Potassium Dichromate Solution (600.6 mg/ 5063-6503-1

L)

Potassium Dichromate Solution (60.06 mg/ 5063-6503-2

L)

 Sulfuric Acid Solution (.01N)
 5063-6503-3

 Toluene Solution (0.02%)
 5063-6503-5

 Potassium Chloride Solution (12 g/L)
 5063-6503-6

 Sodium Iodide Solution (10 g/L)
 5063-6503-7

 Sodium Nitrite Solution (50 g/L)
 5063-6503-8

Validation date : 3/13/2018

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

Material uses : Reagents and Standards for Analytical Chemistry Laboratory Use

2 x 10 ml MHexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L) 2 x 10 ml Potassium Dichromate Solution (60.06 mg/L) 2 x 10 ml Sulfuric Acid Solution (.01N) 4 x 10 ml Toluene Solution (0.02%) 1 x 10 ml Potassium Chloride Solution (12 g/L) 1 x 10 ml Sodium Iodide Solution (10 g/L) 1 x 10 ml Sodium Nitrite Solution (50 g/L) 1 x 10 ml

#### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer**: Agilent Technologies, Inc.

5301 Stevens Creek Blvd Santa Clara, CA 95051, USA

800-227-9770

#### 1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

#### 2.1 Classification of the substance or mixture

OSHA/HCS status : Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L) Potassium Dichromate Solution (60.06 mg/L) Sulfuric Acid Solution (.01N) This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

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Toluene Solution (0.02%) This material is considered hazardous by the OSHA

Hazard Communication Standard (29 CFR 1910.1200). While this material is not considered hazardous by the

Potassium Chloride Solution

(12 g/L)

OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and

other users of this product.

Sodium Iodide Solution (10

q/L)

While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910. 1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and

other users of this product.

Sodium Nitrite Solution (50

q/L)

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

#### Classification of the substance or mixture

#### MHexane Solvent Blank

H225 FLAMMABLE LIQUIDS - Category 2 H315 SKIN IRRITATION - Category 2 H320 EYE IRRITATION - Category 2B

H361 TOXIC TO REPRODUCTION (Fertility) - Category 2

H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system,

peripheral nervous system) - Category 2

H304 ASPIRATION HAZARD - Category 1

Potassium Dichromate Solution (600.6 mg/L)

H350 CARCINOGENICITY - Category 1A

Potassium Dichromate Solution (60.06 mg/L)

H350 CARCINOGENICITY - Category 1A

**Toluene Solution (0.02%)** 

H225 FLAMMABLE LIQUIDS - Category 2 H315 SKIN IRRITATION - Category 2 H320 EYE IRRITATION - Category 2B

H361 TOXIC TO REPRODUCTION (Fertility) - Category 2

H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system,

peripheral nervous system) - Category 2

H304 ASPIRATION HAZARD - Category 1

Sodium Nitrite Solution (50 g/L)

H302 ACUTE TOXICITY (oral) - Category 4

H371 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (blood system) -

Category 2

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### Ingredients of unknown toxicity

: Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sodium Nitrite Solution (50 g/L)

Potassium Chloride Solution (12 g/

Percentage of the mixture consisting of ingredient (s) of unknown inhalation 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 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 dermal toxicity: 1 - 10%

## 2.2 GHS label elements

**Hazard pictograms** 

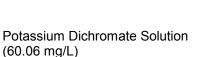
: Mexane Solvent Blank







Potassium Dichromate Solution (600.6 mg/L)







Toluene Solution (0.02%)







Sodium Nitrite Solution (50 g/L)



Danger

Danger

Danger



#### Signal word

: Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

No signal word.

Danger

No signal word.

**Hazard statements** 

: Mexane Solvent Blank

No signal word. Warning

H225 - Highly flammable liquid and vapor. H315 + H320 - Causes skin and eye irritation.

H361 - Suspected of damaging fertility.

H304 - May be fatal if swallowed and enters

airways.

H335 - May cause respiratory irritation.

H336 - May cause drowsiness or dizziness. H373 - May cause damage to organs through prolonged or repeated exposure. (nervous system,

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Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

peripheral nervous system)

H350 - May cause cancer.

H350 - May cause cancer.

No known significant effects or critical hazards. H225 - Highly flammable liquid and vapor. H315 + H320 - Causes skin and eye irritation. H361 - Suspected of damaging fertility.

H304 - May be fatal if swallowed and enters

airways.

H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness. H373 - May cause damage to organs through prolonged or repeated exposure. (nervous system,

peripheral nervous system) No known significant effects or critical hazards.

Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

No known significant effects or critical hazards.

H302 - Harmful if swallowed.

H371 - May cause damage to organs. (blood

system)

### **Precautionary statements**

**Prevention** 

: Mexane Solvent Blank

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions

have been read and understood.

P280 - Wear protective gloves. Wear eve or face

protection. Wear protective clothing.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static

discharge.

P233 - Keep container tightly closed.

P271 - Use only outdoors or in a well-ventilated

P260 - Do not breathe vapor.

P264 - Wash hands thoroughly after handling. P201 - Obtain special instructions before use.

Potassium Dichromate Solution

(600.6 mg/L)

P202 - Do not handle until all safety precautions

have been read and understood.

P280 - Wear protective gloves. Wear eye or face

protection. Wear protective clothing.

P201 - Obtain special instructions before use.

Potassium Dichromate Solution

(60.06 mg/L)

P202 - Do not handle until all safety precautions

have been read and understood.

P280 - Wear protective gloves. Wear eye or face

protection. Wear protective clothing.

Sulfuric Acid Solution (.01N) Not applicable.

Toluene Solution (0.02%)

P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions

have been read and understood.

P280 - Wear protective gloves. Wear eye or face

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protection. Wear protective clothing.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P233 - Keep container tightly closed.

P271 - Use only outdoors or in a well-ventilated

P260 - Do not breathe vapor.

P264 - Wash hands thoroughly after handling.

Potassium Chloride Solution (12 g/

Not applicable.

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

Not applicable.

P260 - Do not breathe vapor.

P270 - Do not eat, drink or smoke when using this

P264 - Wash hands thoroughly after handling.

P314 - Get medical attention if you feel unwell. P308 + P313 - IF exposed or concerned: Get medical attention.

P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if

vou feel unwell.

P301 + P310 + P331 - IF SWALLOWED:

Immediately call a POISON CENTER or physician.

Do NOT induce vomiting.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P302 + P352 + P362+P364 - IF ON SKIN: Wash

with plenty of soap and water. Take off

contaminated clothing and wash it before reuse. P332 + P313 - If skin irritation occurs: Get medical attention.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical

attention.

Potassium Dichromate Solution (600.6 mg/L)

Toluene Solution (0.02%)

P308 + P313 - IF exposed or concerned: Get medical attention.

P308 + P313 - IF exposed or concerned: Get medical attention.

Not applicable.

P314 - Get medical attention if you feel unwell. P308 + P313 - IF exposed or concerned: Get

medical attention.

P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if

you feel unwell.

P301 + P310 + P331 - IF SWALLOWED:

Response

: Mexane Solvent Blank

Potassium Dichromate Solution (60.06 mg/L) Sulfuric Acid Solution (.01N)

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Immediately call a POISON CENTER or physician.

Do NOT induce vomiting.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse

skin with water or shower.

P302 + P352 + P362+P364 - IF ON SKIN: Wash

with plenty of soap and water. Take off

contaminated clothing and wash it before reuse. P332 + P313 - If skin irritation occurs: Get medical

attention.

P305 + P351 + P338 - IF IN EYES: Rinse

cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 - If eye irritation persists: Get medical

attention. Not applicable.

Potassium Chloride Solution (12 g/

L)

Sodium Iodide Solution (10 g/L) Not applicable.

Sodium Nitrite Solution (50 g/L) P308 + P311 - IF exposed or concerned: Call a

POISON CENTER or physician.

P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.

Rinse mouth.

: Mexane Solvent Blank **Storage** P405 - Store locked up.

P403 - Store in a well-ventilated place.

P235 - Keep cool. P405 - Store locked up.

P405 - Store locked up.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 ma/L)

Sulfuric Acid Solution (.01N) Not applicable.

Toluene Solution (0.02%) P405 - Store locked up.

P403 - Store in a well-ventilated place.

P235 - Keep cool. Not applicable.

Potassium Chloride Solution (12 g/

L)

**Disposal** 

Sodium Iodide Solution (10 g/L)

Not applicable.

Sodium Nitrite Solution (50 g/L) P405 - Store locked up. Hexane Solvent Blank

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

international regulations.

Potassium Dichromate Solution

(600.6 mg/L)

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

international regulations.

Potassium Dichromate Solution

(60.06 mg/L)

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

international regulations.

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

Not applicable.

Not applicable.

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

international regulations.

Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L) Not applicable.

Sodium Nitrite Solution (50 g/L) P501 - Dispose of contents and container in accordance with all local, regional, national and

international regulations.

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Supplemental label elements

: Mexane Solvent Blank Eliminate sources of ignition. Avoid spark

> promoters. Ground/bond container and receiving equipment. These alone may be insufficient to

remove static electricity.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

None known.

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/

None known. None known.

None known.

None known.

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

None known. None known.

2.3 Other hazards

Hazards not otherwise classified

Hexane Solvent Blank

Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor may cause flash fire or explosion.

Potassium Dichromate Solution

(600.6 mg/L)

None known.

Potassium Dichromate Solution

(60.06 mg/L)

None known.

Sulfuric Acid Solution (.01N) None known. Toluene Solution (0.02%) None known. Potassium Chloride Solution (12 g/ None known.

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

None known. None known.

# Section 3. Composition/information on ingredients

Substance/mixture

Hexane Solvent Blank Potassium Dichromate Solution (600.

Substance Mixture

6 ma/L)

Potassium Dichromate Solution (60.

Mixture

06 mg/L)

Sulfuric Acid Solution (.01N) Mixture Toluene Solution (0.02%) Mixture Potassium Chloride Solution (12 g/L) Mixture

Sodium Iodide Solution (10 g/L) Mixture Sodium Nitrite Solution (50 g/L) Mixture

Ingredient name	%	CAS number
n-Hexane	100	110-54-3
Potassium Dichromate Solution (600.6 mg/L) Sulphuric acid	<5	7664-93-9
Potassium Dichromate Solution (60.06 mg/L) Sulphuric acid	<5	7664-93-9
Toluene Solution (0.02%) n-Hexane	≥90	110-54-3
Potassium Chloride Solution (12 g/L)		

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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

Sodium nitrite

#### 4.1 Description of necessary first aid measures

Eye contact	: Mexane Solvent Blank	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. Get
		medical attention.

Potassium Dichromate Solution	Immediately flush eyes with plenty of water,
(600.6 mg/L)	occasionally lifting the upper and lower eyelids.
	Check for and remove any contact lenses.
	Continue to rinse for at least 10 minutes. Get

medical attention.

≤5

Potassium Dichromate Solution Immediately flush eyes with plenty of water. occasionally lifting the upper and lower eyelids. (60.06 mg/L) Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get

medical attention.

Immediately flush eyes with plenty of water, Sulfuric Acid Solution (.01N)

> occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

7632-00-0

medical attention if irritation occurs.

Immediately flush eyes with plenty of water. Toluene Solution (0.02%)

> occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get

medical attention.

L)

Potassium Chloride Solution (12 g/ Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Check for and remove any contact lenses. Get

medical attention if irritation occurs.

Sodium Iodide Solution (10 g/L) Immediately flush eyes with plenty of water,

> occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get

medical attention if irritation occurs.

Immediately flush eyes with plenty of water. Sodium Nitrite Solution (50 g/L)

occasionally lifting the upper and lower evelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or

physician.

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: Mexane Solvent Blank

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 selfcontained 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. Get medical attention. If necessary, call a poison center or physician. 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.

Potassium Dichromate Solution (600.6 mg/L)

Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. Get medical attention. 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. Remove victim to fresh air and keep at rest in a

Potassium Dichromate Solution (60.06 mg/L)

position comfortable for breathing. 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. Get medical attention. 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.

Sulfuric Acid Solution (.01N)

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

Toluene Solution (0.02%)

attention if symptoms occur.

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 selfcontained 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. Get medical attention. If necessary, call a poison center or physician. 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.

Potassium Chloride Solution (12 g/ Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Sodium Iodide Solution (10 g/L)

Remove victim to fresh air and keep at rest in a

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Skin contact

Sodium Nitrite Solution (50 g/L)

position comfortable for breathing. Get medical

attention if symptoms occur. Remove victim to fresh air and keep at rest in a

position comfortable for breathing. 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. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. 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.

Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse.

Clean shoes thoroughly before reuse.

Flush contaminated skin with plenty of 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. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly

before reuse.

Potassium Dichromate Solution

Potassium Dichromate Solution

(60.06 mg/L)

(600.6 mg/L)

: Mexane Solvent Blank

Flush contaminated skin with plenty of 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. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly

before reuse.

Wash contaminated skin with soap and water. Sulfuric Acid Solution (.01N) Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

Toluene Solution (0.02%) Flush contaminated skin with plenty of water.

> Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse.

Clean shoes thoroughly before reuse.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

Sodium Nitrite Solution (50 g/L) Flush contaminated skin with plenty of water.

Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. If necessary, call a poison center or physician. Wash clothing before reuse. Clean

shoes thoroughly before reuse.

Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L)

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Ingestion

: Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

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. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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. 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. Get medical attention. 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. 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. Get medical attention. 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.

Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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

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Potassium Chloride Solution (12 g/

of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. 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. Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Sodium Iodide Solution (10 g/L)

Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Sodium Nitrite Solution (50 g/L)

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. Get medical attention. If necessary, call a poison center or 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.

## 4.2 Most important symptoms/effects, acute and delayed Potential acute health effects

**Eye contact** 

Hexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L) Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L) Causes eye irritation.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. Causes eye irritation.

Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

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Inhalation :	Mexane Solvent Blank	Can cause central nervous system (CNS)
	,	depression. May cause drowsiness or dizziness.
		May cause respiratory irritation.
	Potassium Dichromate Solution (600.6 mg/L)	No known significant effects or critical hazards.
	Potassium Dichromate Solution (60.06 mg/L)	No known significant effects or critical hazards.
	Sulfuric Acid Solution (.01N)	No known significant effects or critical hazards.
	Toluene Solution (0.02%)	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.
	Potassium Chloride Solution (12 g/L)	No known significant effects or critical hazards.
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	No known significant effects or critical hazards. No known significant effects or critical hazards.
Skin contact :	Mexane Solvent Blank	Causes skin irritation.
	Potassium Dichromate Solution (600.6 mg/L)	No known significant effects or critical hazards.
	Potassium Dichromate Solution (60.06 mg/L)	No known significant effects or critical hazards.
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)	No known significant effects or critical hazards.  Causes skin irritation.
	Potassium Chloride Solution (12 g/L)	No known significant effects or critical hazards.
	Sodium Iodide Solution (10 g/L)	No known significant effects or critical hazards.
	Sodium Nitrite Solution (50 g/L)	No known significant effects or critical hazards.
Ingestion :	nHexane Solvent Blank	Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters
	Potassium Dichromate Solution (600.6 mg/L)	airways. No known significant effects or critical hazards.
	Potassium Dichromate Solution (60.06 mg/L)	No known significant effects or critical hazards.
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)	No known significant effects or critical hazards. Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.
	Potassium Chloride Solution (12 g/L)	No known significant effects or critical hazards.
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	No known significant effects or critical hazards. Harmful if swallowed.
Over-exposure signs/sympton	<u>ns</u>	
Eye contact :	Mexane Solvent Blank	Adverse symptoms may include the following: pain or irritation watering
	Potassium Dichromate Solution	redness No specific data.
	(600.6 mg/L)	No opcome data.
	Potassium Dichromate Solution (60.06 mg/L)	No specific data.
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)	No specific data. Adverse symptoms may include the following: pain or irritation watering redness
	Potassium Chloride Solution (12 g/L)	No specific data.
	Sodium Iodide Solution (10 g/L)	No specific data.

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Inhalation

Skin contact

Sodium Nitrite Solution (50 g/L) No specific data.

> : Mexane Solvent Blank Adverse symptoms may include the following:

> > respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Dichromate Solution

(600.6 mg/L)

No specific data.

Potassium Dichromate Solution

(60.06 mg/L)

No specific data.

Sulfuric Acid Solution (.01N) No specific data.

Toluene Solution (0.02%) Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Chloride Solution (12 g/ No specific data.

L)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

No specific data. No specific data.

Adverse symptoms may include the following:

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations No specific data.

Potassium Dichromate Solution

Hexane Solvent Blank

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

No specific data.

Sulfuric Acid Solution (.01N) No specific data. Toluene Solution (0.02%) Adverse symptoms may include the following:

irritation

redness

reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Chloride Solution (12 g/ No specific data.

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

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: Mexane Solvent Blank

Adverse symptoms may include the following:

nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Dichromate Solution

(600.6 mg/L)

No specific data.

Potassium Dichromate Solution

(60.06 mg/L)

No specific data.

Sulfuric Acid Solution (.01N) No specific data.

Toluene Solution (0.02%) Adverse symptoms may include the following:

> nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Chloride Solution (12 g/

L)

No specific data.

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

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

Notes to physician

Ingestion

: Mexane Solvent Blank

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Potassium Dichromate Solution

(600.6 mg/L)

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Potassium Dichromate Solution

(60.06 mg/L)

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Sulfuric Acid Solution (.01N)

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Toluene Solution (0.02%)

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Potassium Chloride Solution (12 g/

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Sodium Iodide Solution (10 g/L)

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

Sodium Nitrite Solution (50 g/L)

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** 

: Mexane Solvent Blank

Potassium Dichromate Solution

(600.6 mg/L)

No specific treatment.

No specific treatment.

Potassium Dichromate Solution

(60.06 mg/L)

No specific treatment.

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

No specific treatment. No specific treatment. No specific treatment.

Potassium Chloride Solution (12 g/

L)

No specific treatment.

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L) No specific treatment.

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#### Protection of first-aiders

: Mexane Solvent Blank

(600.6 mg/L)

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. 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

No action shall be taken involving any personal risk

before removing it, or wear gloves.

Potassium Dichromate Solution (60.06 mg/L)

Potassium Dichromate Solution

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.

Sulfuric Acid Solution (.01N)

No action shall be taken involving any personal risk

or without suitable training.

Toluene Solution (0.02%)

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. No action shall be taken involving any personal risk

Potassium Chloride Solution (12 g/ No action shall be taken in or without suitable training.

L) Sodium Iodide Solution (10 g/L)

No action shall be taken involving any personal risk

or without suitable training.

Sodium Nitrite Solution (50 g/L)

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth

resuscitation.

See toxicological information (Section 11)

# Section 5. Fire-fighting measures

# 5.1 Extinguishing media Suitable extinguishing media

: MHexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the

surrounding fire.

Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam. Use an extinguishing agent suitable for the

surrounding fire.

Use an extinguishing agent suitable for the

surrounding fire.

Use an extinguishing agent suitable for the

surrounding fire.

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# Section 5. Fire-fighting measures

Unsuitable extinguishing media

: Mexane Solvent Blank Potassium Dichromate Solution

(600.6 ma/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

L)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

Do not use water jet.

None known.

None known.

None known.

Do not use water jet.

Potassium Chloride Solution (12 g/ None known.

None known. None known.

#### 5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

: Mexane Solvent Blank

may create fire or explosion hazard. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static accumulation may be significantly increased by the presence of small quantities of water or other contaminants. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Highly flammable liquid and vapor. Runoff to sewer

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

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.

In a fire or if heated, a pressure increase will occur

and the container may burst.

Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

L)

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

Potassium Chloride Solution (12 q/ 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.

In a fire or if heated, a pressure increase will occur

and the container may burst.

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# Section 5. Fire-fighting measures

**Hazardous thermal** decomposition products : Mexane Solvent Blank Decomposition products may include the following

materials: carbon dioxide carbon monoxide

Potassium Dichromate Solution

(600.6 mg/L)

Decomposition products may include the following

materials: sulfur oxides

Potassium Dichromate Solution

(60.06 mg/L)

Decomposition products may include the following

materials: sulfur oxides

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

No specific data.

Decomposition products may include the following

materials: carbon dioxide carbon monoxide

Potassium Chloride Solution (12 g/

Sodium Nitrite Solution (50 g/L)

L)

Decomposition products may include the following

materials:

halogenated compounds

metal oxide/oxides Sodium Iodide Solution (10 g/L)

No specific data.

Decomposition products may include the following

materials: nitrogen oxides metal oxide/oxides

5.3 Advice for firefighters

**Special protective actions** for fire-fighters

: Mexane Solvent Blank

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Potassium Dichromate Solution

(600.6 mg/L)

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.

Potassium Dichromate Solution

(60.06 mg/L)

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 Sulfuric Acid Solution (.01N)

from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or

without suitable training.

Toluene Solution (0.02%) 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Potassium Chloride Solution (12 g/

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.

Sodium Iodide Solution (10 g/L)

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.

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# Section 5. Fire-fighting measures

Sodium Nitrite Solution (50 g/L)

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.

**Special protective** equipment for fire-fighters : Mexane Solvent Blank

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Potassium Dichromate Solution

(600.6 mg/L)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Potassium Dichromate Solution

(60.06 mg/L)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Sulfuric Acid Solution (.01N)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Toluene Solution (0.02%)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Potassium Chloride Solution (12 g/

L)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Sodium Iodide Solution (10 g/L)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

Sodium Nitrite Solution (50 g/L)

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive

pressure mode.

# Section 6. Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: Mexane Solvent Blank

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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when

ventilation is inadequate. Put on appropriate

personal protective equipment.

Potassium Dichromate Solution

(600.6 mg/L)

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## Section 6. Accidental release measures

Potassium Dichromate Solution (60.06 mg/L)

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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Sulfuric Acid Solution (.01N)

No action shall be taken involving any personal

Toluene Solution (0.02%)

risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. 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 spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. No action shall be taken involving any personal

Potassium Chloride Solution (12 g/ L)

risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

Sodium Iodide Solution (10 g/L)

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 spilled material. Put on appropriate personal protective equipment.

Sodium Nitrite Solution (50 g/L)

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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

If specialized clothing is required to deal with the spillage, take note of any information in Section 8

For emergency responders : Mexane Solvent Blank

on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized 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". If specialized 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". If specialized clothing is required to deal with the

Potassium Dichromate Solution (60.06 mg/L)

Potassium Dichromate Solution

(600.6 mg/L)

Sulfuric Acid Solution (.01N)

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## Section 6. Accidental release measures

Toluene Solution (0.02%)

Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized 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". If specialized 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". If specialized 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". If specialized 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".

# **6.2 Environmental precautions**

: Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

Potassium Chloride Solution (12 g/L)

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

Avoid dispersal of spilled 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)

waterways, soil or air).

Avoid dispersal of spilled 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).

Avoid dispersal of spilled 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).

Avoid dispersal of spilled 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).

Avoid dispersal of spilled 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).

Avoid dispersal of spilled 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).

Avoid dispersal of spilled 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).

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Inform the relevant authorities if the product has

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## Section 6. Accidental release measures

caused environmental pollution (sewers, waterways, soil or air).

## 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

: Mexane Solvent Blank

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if watersoluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of

via a licensed waste disposal contractor.

Potassium Dichromate Solution (600.6 mg/L)

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Potassium Dichromate Solution (60.06 mg/L)

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Sulfuric Acid Solution (.01N)

Stop leak if without risk. Move containers from spill area. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste

disposal contractor.

Toluene Solution (0.02%)

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if watersoluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an

appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

L)

Potassium Chloride Solution (12 g/ Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Sodium Iodide Solution (10 g/L)

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste

disposal contractor.

Sodium Nitrite Solution (50 g/L)

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste

disposal contractor.

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7.1 Precautions for safe handling

Protective measures : MHexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. 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 vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosionproof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Restrict flow velocity according to API 2003 (2008). NFPA 77 (2007), and Laurence Britton, "Avoiding Static Ignition Hazards in Chemical Operations". To reduce potential for static discharge, ensure that all equipment is properly grounded and bonded and meets appropriate electrical classification requirements.

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 ingest. Avoid breathing vapor or mist. 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. Empty containers retain product residue and can be hazardous. Do not reuse container. 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 ingest. Avoid breathing vapor or mist. 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

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Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

use. Empty containers retain product residue and can be hazardous. Do not reuse container. Put on appropriate personal protective equipment (see Section 8). Keep away from alkalis. Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. 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 vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosionproof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Potassium Chloride Solution (12 g/ I )

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

Put on appropriate personal protective equipment (see Section 8).

Put on appropriate personal protective equipment (see Section 8).

Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

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. 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. 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

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Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

L)

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

7.2 Conditions for safe storage, including any incompatibilities

: Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

before entering eating areas. See also Section 8 for additional information on hygiene measures. 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. 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. Potassium Chloride Solution (12 g/ 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. 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. 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.

> Store in accordance with local regulations. Store in a segregated and approved area. 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 locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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 locked up. Keep container tightly closed and sealed until ready for use. Containers

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Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

L)

Sodium Iodide Solution (10 g/L)

that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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 locked up. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

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. Separate from alkalis. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Store in accordance with local regulations. Store in a segregated and approved area. 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 locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. Potassium Chloride Solution (12 g/ 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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

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Sodium Nitrite Solution (50 g/L)

until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. 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 locked up. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

and drink. Keep container tightly closed and sealed

#### 7.3 Specific end use(s)

Recommendations

: Mexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

: Mexane Solvent Blank Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L) Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%) Potassium Chloride Solution (12 g/ Not applicable.

L)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

Industrial applications, Professional applications. Industrial applications, Professional applications.

Industrial applications, Professional applications.

Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications.

Industrial applications, Professional applications. Industrial applications, Professional applications.

Not applicable. Not applicable.

Not applicable.

Not applicable. Not applicable.

Not applicable. Not applicable.

# Section 8. Exposure controls/personal protection

#### **8.1 Control parameters**

Occupational exposure limits

Industrial sector specific

solutions

Exposure limits
ACGIH TLV (United States, 3/2017). Absorbed through skin. TWA: 50 ppm 8 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 50 ppm 8 hours. TWA: 180 mg/m³ 8 hours. NIOSH REL (United States, 10/2016).

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# Section 8. Exposure controls/personal protection

TWA: 50 ppm 10 hours. TWA: 180 mg/m<sup>3</sup> 10 hours.

OSHA PEL (United States, 6/2016).

TWA: 500 ppm 8 hours. TWA: 1800 mg/m<sup>3</sup> 8 hours.

Potassium Dichromate Solution (600.6 mg/L)

Sulphuric acid

OSHA PEL 1989 (United States, 3/1989).

TWA: 1 mg/m<sup>3</sup> 8 hours.

NIOSH REL (United States, 10/2016).

TWA: 1 mg/m<sup>3</sup> 10 hours.

ACGIH TLV (United States, 3/2017). TWA: 0.2 mg/m<sup>3</sup> 8 hours. Form: Thoracic

OSHA PEL (United States, 6/2016).

TWA: 1 mg/m<sup>3</sup> 8 hours.

Potassium Dichromate Solution (60.06 mg/L)

Sulphuric acid

OSHA PEL 1989 (United States, 3/1989).

TWA: 1 mg/m<sup>3</sup> 8 hours.

NIOSH REL (United States, 10/2016).

TWA: 1 mg/m<sup>3</sup> 10 hours.

ACGIH TLV (United States, 3/2017).

TWA: 0.2 mg/m<sup>3</sup> 8 hours. Form: Thoracic

fraction

OSHA PEL (United States, 6/2016).

TWA: 1 mg/m<sup>3</sup> 8 hours.

Toluene Solution (0.02%)

n-Hexane

ACGIH TLV (United States, 3/2017).

Absorbed through skin.

TWA: 50 ppm 8 hours.

OSHA PEL 1989 (United States, 3/1989).

TWA: 50 ppm 8 hours. TWA: 180 mg/m<sup>3</sup> 8 hours.

NIOSH REL (United States, 10/2016).

TWA: 50 ppm 10 hours. TWA: 180 mg/m<sup>3</sup> 10 hours.

OSHA PEL (United States, 6/2016).

TWA: 500 ppm 8 hours. TWA: 1800 mg/m<sup>3</sup> 8 hours.

Potassium Chloride Solution (12 g/L)

Potassium chloride

None.

None.

Sodium Nitrite Solution (50 g/L)

Sodium nitrite

#### **8.2 Exposure controls**

**Appropriate engineering** controls

: Use only with adequate ventilation. 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.

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# Section 8. Exposure controls/personal protection

#### **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.

#### **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

#### 9.1 Information on basic physical and chemical properties

#### **Appearance**

Color

**Physical state** 

: Mexane Solvent Blank Liquid. Potassium Dichromate Solution Liquid.

(600.6 mg/L)

Potassium Dichromate Solution Liquid.

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Liquid. Toluene Solution (0.02%) Liquid. Potassium Chloride Solution (12 g/ Liquid.

L)

Sodium Iodide Solution (10 g/L)
Sodium Nitrite Solution (50 g/L)
Liquid.

Hexane Solvent Blank
Potassium Dichromate Solution

Colorless.
Not available.

(600.6 mg/L)

Potassium Dichromate Solution Not available.

(60.06 mg/L)

Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

Potassium Chloride Solution (12 g/ Not available.

Not available.

L)

Sodium Iodide Solution (10 g/L) Not available. Sodium Nitrite Solution (50 g/L) Not available.

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# **Section 9. Physical and chemical properties**

Socion on injered	and chombal propert	.00
Odor	: Mexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L)	Gasoline-like [Slight] Not available.
	Potassium Dichromate Solution (60.06 mg/L)	Not available.
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/L)	Not available. Gasoline-like [Slight] Not available.
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	Not available. Not available.
Odor threshold	: MHexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L)	65 to 248 ppm Not available.
	Potassium Dichromate Solution (60.06 mg/L)	Not available.
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/L)	Not available. Not available. Not available.
	Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	Not available. Not available.
рН	<ul> <li>MHexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L)</li> </ul>	Not available. 2.1
	Potassium Dichromate Solution (60.06 mg/L)	2.1
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/L)	Not available. Not available. Not available.
	Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	Not available. Not available.
Melting point	: Mexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L)	-95.35°C (-139.6°F) >0°C (>32°F)
	Potassium Dichromate Solution (60.06 mg/L)	>0°C (>32°F)
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/L)	>0°C (>32°F) -139°C (-218.2°F) 0°C (32°F)
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	0°C (32°F) Not available.
Boiling point	: MHexane Solvent Blank Potassium Dichromate Solution	68.73°C (155.7°F) >100°C (>212°F)
	(600.6 mg/L) Potassium Dichromate Solution (60.06 mg/L)	>100°C (>212°F)
	Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/L)	>100°C (>212°F) 69°C (156.2°F) 100°C (212°F)
	Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	100°C (212°F) Not available.

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# **Section 9. Physical and chemical properties**

Flash point	: Mexane Solvent Blank Closed cup: -22°C (-7.6°F)
	Potassium Dichromate Solution Not available. (600.6 mg/L)
	Potassium Dichromate Solution Not available. (60.06 mg/L)
	Sulfuric Acid Solution (.01N) Not available.
	Toluene Solution (0.02%) Closed cup: -23.15°C (-9.7°F) Potassium Chloride Solution (12 g/ Not available. L)
	Sodium Iodide Solution (10 g/L) Not available. Sodium Nitrite Solution (50 g/L) Not available.
Evaporation rate	: Mexane Solvent Blank 6.82 (butyl acetate = 1) Potassium Dichromate Solution Not available.
	(600.6 mg/L) Potassium Dichromate Solution Not available. (60.06 mg/L)
	Sulfuric Acid Solution (.01N) Not available.
	Toluene Solution (0.02%) 6.82 (butyl acetate = 1) Potassium Chloride Solution (12 g/ Not available.
	L)
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L) Not available.
Flammability (solid, gas)	: Mexane Solvent Blank Not applicable.
	Potassium Dichromate Solution Not applicable. (600.6 mg/L)
	Potassium Dichromate Solution Not applicable. (60.06 mg/L)
	Sulfuric Acid Solution (.01N) Not applicable.
	Toluene Solution (0.02%)  Potassium Chloride Solution (12 g/ Not applicable.  L)
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L) Not applicable.
Lower and upper explosive	: pHexane Solvent Blank Lower: 1.1%
(flammable) limits	Upper: 7.5% Potassium Dichromate Solution Not available.
	(600.6 mg/L) Potassium Dichromate Solution Not available.
	(60.06 mg/L) Sulfuric Acid Solution (.01N) Not available.
	Toluene Solution (0.02%) Lower: 1.1%
	Upper: 7.5% Potassium Chloride Solution (12 g/ Not available. L)
	Sodium lodide Solution (10 g/L)  Sodium Nitrite Solution (50 g/L)  Not available.
Vapor pressure	: Mexane Solvent Blank 17 kPa (127.51 mm Hg) [room temperature] Potassium Dichromate Solution Not available.
	(600.6 mg/L) Potassium Dichromate Solution Not available. (60.06 mg/L)
	Sulfuric Acid Solution (.01N) Not available.
	Toluene Solution (0.02%) 16.5 kPa (124 mm Hg) [room temperature] Potassium Chloride Solution (12 g/ Not available. L)
	Sodium lodide Solution (10 g/L)  Not available.  Sodium Nitrite Solution (50 g/L)  Not available.
Vapor density	:
-	

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# Section 9. Physical and chemical properties

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	MHexane Solvent Blank	3 [Air = 1]
	Potassium Dichromate Solution (600.6 mg/L)	Not available.
	Potassium Dichromate Solution (60.06 mg/L)	Not available.
	Sulfuric Acid Solution (.01N)	Not available.
	Toluene Solution (0.02%)	3 [Air = 1]
	Potassium Chloride Solution (12 g/L)	Not available.
	Sodium lodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)	Not available. Not available.
Relative density	: Mexane Solvent Blank	0.7
<b>,</b>	Potassium Dichromate Solution (600.6 mg/L)	Not available.
	Potassium Dichromate Solution (60.06 mg/L)	Not available.
	Sulfuric Acid Solution (.01N)	Not available.
	Toluene Solution (0.02%)	Not available.
	Potassium Chloride Solution (12 g/L)	
	Sodium Iodide Solution (10 g/L)	Not available.
	Sodium Nitrite Solution (50 g/L)	Not available.
Solubility	: Mexane Solvent Blank	Soluble in the following materials: methanol, diethyl ether and acetone.
		Insoluble in the following materials: cold water and hot water.
	Potassium Dichromate Solution	Easily soluble in the following materials: cold water
	(600.6 mg/L)	and hot water.
	Potassium Dichromate Solution	Easily soluble in the following materials: cold water
	(60.06 mg/L)	and hot water.
	Sulfuric Acid Solution (.01N)	Easily soluble in the following materials: cold water and hot water.
	Toluene Solution (0.02%)	Insoluble in the following materials: cold water and hot water.
	Potassium Chloride Solution (12 g/L)	Easily soluble in the following materials: cold water and hot water.
	Sodium Iodide Solution (10 g/L)	Easily soluble in the following materials: cold water and hot water.
	Sodium Nitrite Solution (50 g/L)	Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-	: Mexane Solvent Blank	4
octanol/water	Potassium Dichromate Solution (600.6 mg/L)	Not available.
	Potassium Dichromate Solution (60.06 mg/L)	Not available.
	Sulfuric Acid Solution (.01N)	Not available.
	Toluene Solution (0.02%)	Not available.
	Potassium Chloride Solution (12 g/L)	Not available.
	Sodium Iodide Solution (10 g/L)	Not available.
	Sodium Nitrite Solution (50 g/L)	Not available.
Auto-ignition temperature	: Mexane Solvent Blank	225°C (437°F)
	Potassium Dichromate Solution (600.6 mg/L)	Not available.
	Potassium Dichromate Solution (60.06 mg/L)	Not available.
	Sulfuric Acid Solution (.01N)	Not available.
	Toluene Solution (0.02%)	224.85°C (436.7°F)

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**Decomposition temperature** 

**Viscosity** 

# Section 9. Physical and chemical properties

Potassium Chloride Solution (12 g/ Not available.

L)

Sodium Nitrite Solution (50 g/L) Not available. Mexane Solvent Blank Not available. Potassium Dichromate Solution Not available.

Sodium Iodide Solution (10 g/L)

(600.6 ma/L)

Potassium Dichromate Solution Not available.

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Not available. Toluene Solution (0.02%) Not available. Potassium Chloride Solution (12 g/ Not available.

L)

Sodium Iodide Solution (10 g/L) Not available. Sodium Nitrite Solution (50 g/L) Not available.

: Mexane Solvent Blank Dynamic (room temperature): 0.3 mPa·s (0.3 cP)

Not available.

Potassium Dichromate Solution Not available.

(600.6 mg/L)

Potassium Dichromate Solution Not available.

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Not available. Toluene Solution (0.02%) Not available. Potassium Chloride Solution (12 g/ Not available. L)

Sodium Iodide Solution (10 a/L) Not available. Sodium Nitrite Solution (50 g/L) Not available.

# Section 10. Stability and reactivity

: Mexane Solvent Blank 10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

No specific test data related to reactivity available Potassium Dichromate Solution for this product or its ingredients. (600.6 mg/L)

Potassium Dichromate Solution No specific test data related to reactivity available for this product or its ingredients. (60.06 mg/L)

No specific test data related to reactivity available Sulfuric Acid Solution (.01N)

for this product or its ingredients.

No specific test data related to reactivity available Toluene Solution (0.02%)

for this product or its ingredients.

No specific test data related to reactivity available Potassium Chloride Solution (12 g/

for this product or its ingredients. L)

Sodium Iodide Solution (10 g/L) No specific test data related to reactivity available

for this product or its ingredients.

Sodium Nitrite Solution (50 g/L) No specific test data related to reactivity available

for this product or its ingredients.

: Mexane Solvent Blank 10.2 Chemical stability The product is stable.

> Potassium Dichromate Solution The product is stable.

(600.6 mg/L)

Potassium Dichromate Solution The product is stable.

(60.06 mg/L)

Sulfuric Acid Solution (.01N) The product is stable. Toluene Solution (0.02%) The product is stable. Potassium Chloride Solution (12 g/ The product is stable.

L)

Sodium Iodide Solution (10 a/L) The product is stable. Sodium Nitrite Solution (50 g/L) The product is stable.

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# Section 10. Stability and reactivity

#### 10.3 Possibility of hazardous reactions

Mexane Solvent Blank Under normal conditions of storage and use,

hazardous reactions will not occur.

Potassium Dichromate Solution Under normal conditions of storage and use, (600.6 mg/L)

hazardous reactions will not occur.

Potassium Dichromate Solution Under normal conditions of storage and use. (60.06 mg/L)

hazardous reactions will not occur.

Sulfuric Acid Solution (.01N) Under normal conditions of storage and use.

hazardous reactions will not occur.

Toluene Solution (0.02%) Under normal conditions of storage and use,

hazardous reactions will not occur.

Potassium Chloride Solution (12 g/

Under normal conditions of storage and use, hazardous reactions will not occur.

Sodium Iodide Solution (10 g/L) Under normal conditions of storage and use.

hazardous reactions will not occur.

Under normal conditions of storage and use, Sodium Nitrite Solution (50 g/L)

hazardous reactions will not occur.

#### 10.4 Conditions to avoid

: Mexane Solvent Blank

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low

or confined areas. No specific data.

Potassium Dichromate Solution

(600.6 mg/L)

No specific data.

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N)

No specific data.

Toluene Solution (0.02%) Avoid all possible sources of ignition (spark or

flame). Do not pressurize, cut, weld, braze, solder. drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low

or confined areas.

Potassium Chloride Solution (12 g/ No specific data.

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

#### 10.5 Incompatible materials

: Mexane Solvent Blank

Reactive or incompatible with the following

materials:

oxidizing materials

Potassium Dichromate Solution

(600.6 mg/L)

May react or be incompatible with oxidizing

materials.

Potassium Dichromate Solution

(60.06 mg/L)

May react or be incompatible with oxidizing

materials.

Sulfuric Acid Solution (.01N)

Attacks many metals producing extremely

flammable hydrogen gas which can form explosive

mixtures with air.

Reactive or incompatible with the following

materials: alkalis

Toluene Solution (0.02%) Reactive or incompatible with the following

materials:

oxidizing materials

Potassium Chloride Solution (12 g/

May react or be incompatible with oxidizing materials.

Sodium Iodide Solution (10 g/L)

May react or be incompatible with oxidizing

materials.

Sodium Nitrite Solution (50 g/L) May react or be incompatible with oxidizing

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# Section 10. Stability and reactivity

10.6 Hazardous decomposition products materials.

Under normal conditions of storage and use.

hazardous decomposition products should not be

produced.

Potassium Dichromate Solution

(600.6 mg/L)

: Mexane Solvent Blank

Under normal conditions of storage and use,

hazardous decomposition products should not be

produced.

Potassium Dichromate Solution

(60.06 mg/L)

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

Sulfuric Acid Solution (.01N)

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

Toluene Solution (0.02%)

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

Potassium Chloride Solution (12 g/

Under normal conditions of storage and use,

hazardous decomposition products should not be

produced.

Sodium Iodide Solution (10 g/L) Under normal conditions of storage and use,

hazardous decomposition products should not be

Sodium Nitrite Solution (50 g/L)

Under normal conditions of storage and use, hazardous decomposition products should not be

produced.

# **Section 11. Toxicological information**

## 11.1 Information on toxicological effects

#### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure	
MHexane Solvent Blank					
n-Hexane	•		>31.86 mg/l	4 hours	
		Female	40000		
	LC50 Inhalation Vapor	Rat	48000 ppm	4 hours	
	LD50 Oral	Rat	15840 mg/kg	-	
Potassium Dichromate					
Solution (600.6 mg/L)					
Sulphuric acid	LD50 Oral	Rat	2140 mg/kg	-	
Potassium Dichromate					
Solution (60.06 mg/L)					
Sulphuric acid	LD50 Oral	Rat	2140 mg/kg	-	
Toluene Solution (0.02%)					
n-Hexane	LC50 Inhalation Vapor	Rat - Male,	>31.86 mg/l	4 hours	
	2000 milatain vapor	Female	01.00 mg/1	- Hours	
	LC50 Inhalation Vapor	Rat	48000 ppm	4 hours	
	LD50 Oral	Rat	15840 mg/kg	-	
Potassium Chloride					
Solution (12 g/L)					
Potassium chloride	LD50 Oral	Rat	2600 mg/kg	-	
Sodium Nitrito Solution (50					
Sodium Nitrite Solution (50					

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# Section 11. Toxicological information

g/L)				
Sodium nitrite	LC50 Inhalation Dusts and mists	Rat	5.5 mg/l	4 hours
	LD50 Oral	Rat	85 mg/kg	-

### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
n-Hexane Solvent Blank	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
Potassium Dichromate Solution (600.6 mg/L)					
Sulphuric acid	Eyes - Severe irritant	Rabbit	-	250	-
	Eyes - Severe irritant	Rabbit	-	Micrograms 0.5 minutes 5 milligrams	-
Potassium Dichromate Solution (60.06 mg/L)					
Sulphuric acid	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes 5 milligrams	-
Toluene Solution (0.02%) n-Hexane	Eyes - Mild irritant	Rabbit	-	10 milligrams	-
Potassium Chloride Solution (12 g/L) Potassium chloride	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
Sodium Nitrite Solution (50 g/L)					
Sodium nitrite	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

## **Sensitization**

Not available.

### **Mutagenicity**

Conclusion/Summary

: Not available.

**Carcinogenicity** 

**Conclusion/Summary**: Not available.

**Classification** 

Product/ingredient name	OSHA	IARC	NTP
Fotassium Dichromate Solution (600.6 mg/L) Sulphuric acid	-	1	Known to be a human carcinogen.
Potassium Dichromate Solution (60.06 mg/L) Sulphuric acid	_	1	Known to be a human carcinogen.

**Reproductive toxicity** 

Conclusion/Summary : Not available.

**Teratogenicity** 

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Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
n-Hexane n-Hexane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Toluene Solution (0.02%) n-Hexane	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects

Category 2

Not determined

blood system

### Specific target organ toxicity (repeated exposure)

Sodium Nitrite Solution (50 g/L)

Name	Category	Route of exposure	Target organs
n-Hexane n-Hexane	Category 2	Not determined	nervous system and peripheral nervous system
Toluene Solution (0.02%) n-Hexane	Category 2	Not determined	nervous system and peripheral nervous system

#### **Aspiration hazard**

Sodium nitrite

Name	Result
nHexane Solvent Blank n-Hexane	ASPIRATION HAZARD - Category 1
Toluene Solution (0.02%) Toluene Solution (0.02%) n-Hexane	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

# Information on the likely routes of exposure

: Mexane Solvent Blank Routes of entry anticipated: Oral, Dermal, Inhalation. Potassium Dichromate Solution Routes of entry anticipated: Oral, Dermal, (600.6 mg/L) Inhalation. Potassium Dichromate Solution Routes of entry anticipated: Oral, Dermal, (60.06 mg/L) Inhalation. Sulfuric Acid Solution (.01N) Routes of entry anticipated: Oral, Dermal, Inhalation. Routes of entry anticipated: Oral, Dermal, Toluene Solution (0.02%) Inhalation. Potassium Chloride Solution (12 g/ Not available. Sodium Iodide Solution (10 g/L) Routes of entry anticipated: Oral, Dermal, Inhalation. Sodium Nitrite Solution (50 g/L) Routes of entry anticipated: Oral, Dermal, Inhalation.

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#### Potential acute health effects

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-	70	CU	riita	U

Inhalation

Skin contact

Ingestion

: MHexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L) Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) Potassium Chloride Solution (12 g/

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

: Mexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

L)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

Mexane Solvent Blank Potassium Dichromate Solution (600.6 mg/L)Potassium Dichromate Solution

(60.06 mg/L) Sulfuric Acid Solution (.01N)

Toluene Solution (0.02%)

Sodium Iodide Solution (10 g/L)

Sodium Nitrite Solution (50 g/L)

Hexane Solvent Blank

Potassium Dichromate Solution (600.6 mg/L)

Potassium Dichromate Solution (60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%)

Potassium Chloride Solution (12 g/ L)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L)

Causes eve irritation.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. Causes eve irritation.

No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. Can cause central nervous system (CNS)

depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Causes skin irritation.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. Causes skin irritation.

Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.

No known significant effects or critical hazards. No known significant effects or critical hazards.

Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airwavs.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards. Can cause central nervous system (CNS)

depression. May be fatal if swallowed and enters airways.

No known significant effects or critical hazards.

No known significant effects or critical hazards. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

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Eye contact : Mexane Solvent Blank Adverse symptoms may include the following:

pain or irritation watering redness

No specific data.

No specific data.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N)

No specific data.

Toluene Solution (0.02%)

Adverse symptoms may include the following:

pain or irritation watering redness

Potassium Chloride Solution (12 g/ No specific data.

L)

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

Inhalation : MHexane Solvent Blank Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations No specific data.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) No specific data.

No specific data.

Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Chloride Solution (12 g/ No specific data.

L)

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

Skin contact : priest : priest

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations No specific data.

No specific data.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N) No specific data.

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Toluene Solution (0.02%) Adverse symptoms may include the following:

irritation redness

reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Chloride Solution (12 g/ No specific data.

L)

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

Ingestion: #Hexane Solvent Blank Adverse symptoms may include the following:

nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations No specific data.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution No specific data.

(60.06 mg/L)

Sulfuric Acid Solution (.01N) No specific data.

Toluene Solution (0.02%) Adverse symptoms may include the following:

nausea or vomiting reduced fetal weight increase in fetal deaths skeletal malformations

Potassium Chloride Solution (12 g/ No specific data.

L)

Sodium Iodide Solution (10 g/L) No specific data. Sodium Nitrite Solution (50 g/L) No specific data.

#### Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects: Not available.

Potential chronic health effects

General : Mexane Solvent Blank May cause damage to organs through prolonged or

repeated exposure.

No known significant effects or critical hazards.

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution No known significant effects or critical hazards.

(60.06 mg/L)

Sulfuric Acid Solution (.01N)

No known significant effects or critical hazards.

Toluene Solution (0.02%)

May cause damage to organs through prolonged or

repeated exposure.

Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.

L)

Sodium Iodide Solution (10 g/L) No known significant effects or critical hazards. Sodium Nitrite Solution (50 g/L) No known significant effects or critical hazards.

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Carcinogenicity	: Mexane Solvent Blank  No known significant effects or critical hazards.
Carcinogenicity	Potassium Dichromate Solution May cause cancer. Risk of cancer depends on
	(600.6 mg/L) duration and level of exposure.
	Potassium Dichromate Solution May cause cancer. Risk of cancer depends on
	(60.06 mg/L) duration and level of exposure.
	Sulfuric Acid Solution (.01N)  No known significant effects or critical hazards.
	Toluene Solution (0.02%) No known significant effects or critical hazards.
	Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.
	L)
	Sodium Iodide Solution (10 g/L)  No known significant effects or critical hazards.
BB 4	Sodium Nitrite Solution (50 g/L)  No known significant effects or critical hazards.
Mutagenicity	: Mexane Solvent Blank No known significant effects or critical hazards.
	Potassium Dichromate Solution No known significant effects or critical hazards. (600.6 mg/L)
	Potassium Dichromate Solution No known significant effects or critical hazards.
	(60.06 mg/L)
	Sulfuric Acid Solution (.01N)  No known significant effects or critical hazards.
	Toluene Solution (0.02%) No known significant effects or critical hazards.
	Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.
	L)
	Sodium Iodide Solution (10 g/L)  No known significant effects or critical hazards.
<b>-</b>	Sodium Nitrite Solution (50 g/L)  No known significant effects or critical hazards.
Teratogenicity	: Mathematical Potassium Dichromate Solution  No known significant effects or critical hazards.  No known significant effects or critical hazards.
	Potassium Dichromate Solution No known significant effects or critical hazards. (600.6 mg/L)
	Potassium Dichromate Solution No known significant effects or critical hazards.
	(60.06 mg/L)
	Sulfuric Acid Solution (.01N) No known significant effects or critical hazards.
	Toluene Solution (0.02%) No known significant effects or critical hazards.
	Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.
	L) Sodium Iodide Solution (10 g/L) No known significant effects or critical hazards.
	Sodium Nitrite Solution (50 g/L)  No known significant effects or critical hazards.  No known significant effects or critical hazards.
Developmental effects	: Mexane Solvent Blank  No known significant effects or critical hazards.
Developmental effects	Potassium Dichromate Solution No known significant effects or critical hazards.
	(600.6 mg/L)
	Potassium Dichromate Solution No known significant effects or critical hazards.
	(60.06 mg/L)
	Sulfuric Acid Solution (.01N)  No known significant effects or critical hazards.
	Toluene Solution (0.02%)  No known significant effects or critical hazards.
	Potassium Chloride Solution (12 g/ No known significant effects or critical hazards. L)
	Sodium Iodide Solution (10 g/L) No known significant effects or critical hazards.
	Sodium Nitrite Solution (50 g/L) No known significant effects or critical hazards.
Fertility effects	: MHexane Solvent Blank Suspected of damaging fertility.
i oramy oncode	Potassium Dichromate Solution No known significant effects or critical hazards.
	(600.6 mg/L)
	Potassium Dichromate Solution No known significant effects or critical hazards.
	(60.06 mg/L)
	Sulfuric Acid Solution (.01N)  No known significant effects or critical hazards.
	Toluene Solution (0.02%) Suspected of damaging fertility.  Potassium Chloride Solution (12 g/ No known significant effects or critical hazards.
	L)
	Sodium Iodide Solution (10 g/L) No known significant effects or critical hazards.
	Sodium Nitrite Solution (50 g/L) No known significant effects or critical hazards.

### **Numerical measures of toxicity**

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### **Acute toxicity estimates**

Route	ATE value
Potassium Dichromate Solution (600.6 mg/L) Oral	44953.3 mg/kg
Potassium Dichromate Solution (60.06 mg/L) Oral	44929.7 mg/kg
Potassium Chloride Solution (12 g/L) Oral	218873.6 mg/kg
Sodium Nitrite Solution (50 g/L) Oral	1782 mg/kg

: Mexane Solvent Blank Other information Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking. Potassium Dichromate Solution Not available. (600.6 mg/L) Potassium Dichromate Solution Not available. (60.06 mg/L) Sulfuric Acid Solution (.01N) Not available. Adverse symptoms may include the following: Toluene Solution (0.02%) Repeated exposure may cause skin dryness or cracking. Potassium Chloride Solution (12 g/ Not available. L) Sodium Iodide Solution (10 g/L) Not available. Sodium Nitrite Solution (50 g/L) Not available.

# Section 12. Ecological information

#### **12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
mHexane Solvent Blank n-Hexane	Acute LC50 2500 μg/l Fresh water	Fish - Pimephales promelas	96 hours
Potassium Dichromate Solution (600.6 mg/L)			
Sulphuric acid	Acute LC50 42500 μg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 36 ul/L Marine water	Fish - Agonus cataphractus	96 hours
Potassium Dichromate Solution (60.06 mg/L)			
Sulphuric acid	Acute LC50 42500 μg/l Marine water	Crustaceans - Pandalus montagui - Adult	48 hours
	Acute LC50 36 ul/L Marine water	Fish - Agonus cataphractus	96 hours
Toluene Solution (0.02%) n-Hexane	Acute LC50 2500 μg/l Fresh water	Fish - Pimephales promelas	96 hours
Potassium Chloride Solution (12 g/L)	Acute FCF0 4227000 us// Freeh weter	Algora Novigula comigulum	OC hours
Potassium chloride	Acute EC50 1337000 μg/l Fresh water	Algae - Navicula seminulum	96 hours

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	Acute EC50 9.24 g/L Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 141460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 12.92 mg/l Fresh water	Crustaceans - Pseudosida ramosa - Neonate	48 hours
	Acute LC50 880 mg/l Fresh water	Fish - Pimephales promelas	96 hours
Sodium Nitrite Solution (50 g/L)			
Sodium nitrite	Acute EC50 159000 µg/l Marine water	Algae - Tetraselmis chuii	72 hours
	Acute EC50 1600000 µg/l Marine water	Algae - Tetraselmis chuii	96 hours
	Acute LC50 1100 μg/l Fresh water	Crustaceans - Cherax	48 hours
		quadricarinatus	
	Acute LC50 0.16 μg/l Fresh water	Fish - Ictalurus punctatus - Fingerling	96 hours
	Chronic NOEC 0.912 mg/l Marine water	Fish - Hippocampus abdominalis - Juvenile (Fledgling, Hatchling, Weanling)	35 days

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Potassium Chloride Solution (12 g/L) Potassium chloride	-	-	Readily
Sodium Nitrite Solution (50 g/L) Sodium nitrite	-	-	Readily

### **12.3 Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
nHexane Solvent Blank n-Hexane	4	501.187	high
Toluene Solution (0.02%) n-Hexane	4	501.187	high
Potassium Chloride Solution (12 g/L) Potassium chloride	-0.46	-	low
Sodium Nitrite Solution (50 g/L) Sodium nitrite	-3.7	-	low

### **12.4 Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

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

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### Section 13. Disposal considerations

#### 13.1 Waste treatment methods

**Disposal methods** 

rhe generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## **Section 14. Transport information**

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN3316	UN3316	UN3316	UN3316	UN3316
UN proper shipping name	Chemical kits	CHEMICAL KIT	EQUIPO QUIMICO	CHEMICAL KIT	Chemical kit
Transport hazard class(es)	9	9	9	9	9
Packing group	II	II	II	II	II
Environmental hazards	₩o.	Yes.	res. The environmentally hazardous substance mark is not required.	Yes.	environmentally hazardous substance mark is not required.

Additional information
DOT Classification

: Reportable quantity 16771.5 lbs / 7614.3 kg. The classification of the product is due solely to the presence of one or more US DOT-listed 'Hazardous substances' that are subject to reportable quantity requirements and only applies to shipments of packages greater than, or equal to, the product reportable quantity. Package sizes less than the product reportable quantity are not regulated as hazardous materials.

Limited quantity Yes.

<u>Packaging instruction</u> Exceptions: 161. Non-bulk: 161. Bulk: None. <u>Quantity limitation</u> Passenger aircraft/rail: 10 kg. Cargo aircraft: 10 kg.

**Special provisions** 15

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### **Section 14. Transport information**

TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark).

The marine pollutant mark is not required when transported by road or rail.

**Mexico Classification** 

**IMDG** 

: Special provisions 251, 340

The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Emergency schedules F-A, S-P Special provisions 251, 340

**IATA** : The environmentally hazardous substance mark may appear if required by other

transportation regulations.

Quantity limitation Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger

Aircraft: 1 kg. Packaging instructions: Y960.

Special provisions A44, A163

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: Not available. to Annex II of MARPOL and

the IBC Code

## Section 15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**U.S. Federal regulations** : TSCA 5(a)2 final significant new use rules: Sodium nitrite

> TSCA 6 final risk management: Potassium dichromate TSCA 8(a) CDR Exempt/Partial exemption: Not determined Clean Water Act (CWA) 307: Potassium dichromate; Toluene

Clean Water Act (CWA) 311: Sulphuric acid; Potassium dichromate; Sodium nitrite;

Toluene

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)** 

Class I Substances

Clean Air Act Section 602

Clean Air Act Section 602 Class II Substances

**DEA List I Chemicals** (Precursor Chemicals)

**DEA List II Chemicals** (Essential Chemicals)

**SARA 302/304** 

: Listed

: Not listed

: Not listed

: Not listed

: Listed

Composition/information on ingredients

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			SARA 302 TPQ		SARA 304 RQ	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
Potassium Dichromate Solution (600.6 mg/L) Sulphuric acid	<5	Yes.	1000	66.3	1000	66.3
Potassium Dichromate Solution (60.06 mg/L) Sulphuric acid	<5	Yes.	1000	66.3	1000	66.3
Sulfuric Acid Solution (.01N) Sulphuric acid	<0.1	Yes.	1000	66.3	1000	66.3

**SARA 304 RQ** : **8**3564 lbs / 37938.1 kg

**SARA 311/312** 

Classification : Mexane Solvent Blank FLAMMABLE LIQUIDS - Category 2

SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B

TOXIC TO REPRODUCTION (Fertility) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Narcotic effects) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system, peripheral nervous system) -

Category 2

ASPIRATION HAZARD - Category 1

HNOC - Static-accumulating flammable liquid

CARCINOGENICITY - Category 1A

Potassium Dichromate Solution

(600.6 mg/L)

Potassium Dichromate Solution

(60.06 mg/L)

Sulfuric Acid Solution (.01N) Toluene Solution (0.02%) CARCINOGENICITY - Category 1A

Not applicable.

FLAMMABLE LIQUIDS - Category 2

SKIN IRRITATION - Category 2

EYE IRRITATION - Category 2B

TOXIC TO REPRODUCTION (Fertility) - Category 2

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(Respiratory tract irritation) - Category 3

SPECIFIC TARGET ORGÁN TOXICÍTY (SINGLE EXPOSURE)

(Narcotic effects) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system, peripheral nervous system) -

Category 2
ASPIRATION F
Not applicable.

ASPIRATION HAZARD - Category 1

Potassium Chloride Solution (12 g/

L)

Sodium Iodide Solution (10 g/L) Sodium Nitrite Solution (50 g/L) Not applicable.

ACUTE TOXICITY (oral) - Category 4

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

(blood system) - Category 2

#### **Composition/information on ingredients**

Name	%	Classification
MHexane Solvent Blank		
n-Hexane	100	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2B TOXIC TO REPRODUCTION (Fertility) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous

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L) Sodium nitrite	≤5	OXIDIZING SOLIDS - Category 3 ACUTE TOXICITY (oral) - Category 3 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (blood system) - Category 2
Potassium Chloride Solution (12 g/L) Potassium chloride  Sodium Nitrite Solution (50 g/	≤3	EYE IRRITATION - Category 2A
Toluene Solution (0.02%) n-Hexane	≥90	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Fertility) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system, peripheral nervous system) - Category 2 ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid
Potassium Dichromate Solution (60.06 mg/L) Sulphuric acid	<5	SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 CARCINOGENICITY - Category 1A HNOC - Corrosive to digestive tract [severe]
Potassium Dichromate Solution (600.6 mg/L) Sulphuric acid	<5	ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid  SKIN CORROSION - Category 1A SERIOUS EYE DAMAGE - Category 1 CARCINOGENICITY - Category 1A HNOC - Corrosive to digestive tract [severe]
		system, peripheral nervous system) - Category 2

### **SARA 313**

	Product name	CAS number	%
Form R - Reporting requirements	n-Hexane Solvent Blank	110-54-3	100
	Potassium Dichromate Solution (600.6 mg/L) Sulphuric acid	7664-93-9	<5
	Potassium Dichromate Solution (60.06 mg/L) Sulphuric acid	7664-93-9	<5
	Toluene Solution (0.02%) n-Hexane	110-54-3	≥90
	Sodium Nitrite Solution (50 g/L) Sodium nitrite	7632-00-0	≤5

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Supplier notification	MHexane Solvent Blank n-Hexane	110-54-3	100
	Potassium Dichromate Solution (600.6 mg/L) Sulphuric acid	7664-93-9	<5
	Potassium Dichromate Solution (60.06 mg/L) Sulphuric acid	7664-93-9	<5
	Toluene Solution (0.02%) n-Hexane	110-54-3	≥90
	Sodium Nitrite Solution (50 g/L) Sodium nitrite	7632-00-0	≤5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

#### **State regulations**

**Massachusetts** : The following components are listed: HEXANE; N-HEXANE; SULFURIC ACID

**New York** : The following components are listed: Hexane; Sulfuric acid

: The following components are listed: n-HEXANE; HEXANE; SULFURIC ACID; **New Jersey** 

DIHYDROGEN SULFATE

**Pennsylvania** 

: The following components are listed: HEXANE; SULFURIC ACID

#### California Prop. 65



MARNING: This product can expose you to Chromium (hexavalent compounds), which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Strong inorganic acid mists containing sulfuric acid, which is known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Ingredient name	No significant risk level	Maximum acceptable dosage level
Potassium Dichromate Solution (600.6 mg/L)		
Chromium (hexavalent compounds)	Yes.	-
Strong inorganic acid mists containing sulfuric acid	-	-
Potassium Dichromate Solution (60.06 mg/L)		
Chromium (hexavalent compounds)	Yes.	-
Strong inorganic acid mists containing sulfuric acid	-	-
Sulfuric Acid Solution (.01N)		
Strong inorganic acid mists containing sulfuric acid	-	-
Toluene Solution (0.02%)		
Toluene	-	Yes.

#### 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

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Not listed.

### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### **UNECE Aarhus Protocol on POPs and Heavy Metals**

Not 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 : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : All components are listed or exempted.

Thailand : Not determined.

Turkey : Not determined.

United States : All components are listed or exempted.

Viet Nam : Not determined.

## Section 16. Other information

#### **History**

Date of issue : 03/13/2018

Date of previous issue : 03/10/2016

Version : 5

#### Procedure used to derive the classification

Classification	Justification
MHexane Solvent Blank	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN IRRITATION - Category 2	Expert judgment
EYE IRRITATION - Category 2B	On basis of test data
TOXIC TO REPRODUCTION (Fertility) - Category 2	Expert judgment
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Expert judgment
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Expert judgment
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system, peripheral nervous system) - Category 2	Expert judgment
ASPIRATION HAZARD - Category 1	Expert judgment
Potassium Dichromate Solution (600.6 mg/L) CARCINOGENICITY - Category 1A	Calculation method
Potassium Dichromate Solution (60.06 mg/L)	
CARCINOGENICITY - Category 1A	Calculation method

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## **Section 16. Other information**

Toluene Solution (0.02%)	
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2B	Calculation method
TOXIC TO REPRODUCTION (Fertility) - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -	Calculation method
Category 3	O al and a tip a man a thread
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (nervous system,	Calculation method
peripheral nervous system) - Category 2	Export judgment
ASPIRATION HAZARD - Category 1	Expert judgment
Sodium Nitrite Solution (50 g/L)	
ACUTE TOXICITY (oral) - Category 4	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (blood system) - Category 2	Calculation method

<sup>✓</sup> Indicates information that has changed from previously issued version.

### **Notice to reader**

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