

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Potassium R1

Supplier: Shenzhen Sinsche Technology Co.,Ltd.

ADD: 4/F, T3 Building, Silicon Valley Compound, Qingquan Road, Longhua Street, Longhua District, Shenzhen

City, P.RC 518109.

Tel: +86 (755) 82127315 Fax: +86 (755) 82127860

Email:Sinsche@sinsche.com

Emergency telephone: +86 (755) 82127315 (Mon-Fri 08:30- 18:00)

Chemical Name: Not applicable

CAS No.: Not applicable

Chemical Formula: Not applicable **Chemical Family:** Not applicable

PIN: NA

Intended Use: Determination of Ozone

Date of MSDS Preparation:

Day: 21
Month: June
Year: 2020

2 - COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content
Disodium edetate dihydrate	205-358-3	6381-92-6	<5%
Sodium tetraborate, anhydrous	215-540-4	1330-43-4	<5%
Formaldehyde	200-001-8	50-00-0	40-60%
Demineralized Water	231-791-2	7732-18-5	20-40%

Hazard Symbols: T C

Risk Phrases: 10 23/24/25 34 43 45

Section 3 - HAZARDS IDENTIFICATION

CHS Classification

Most Important Hazards

According to ABNT NBR 14725-2

Skin corrosion/irritation	Category 2- (315)
Serious eye damage/eye irritation	Category 2A- (H319)





Hazard statements
H315-Causes skin irrtation
H319-Causes serious eye irrtation

Precautionary statement

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

P302+P352-IF ON SKIN: Wash with plenty of water and soap

P332+P313-If skin irrtation occurs: Get medical advice/attention

P362+P364-Take off all contaminated clothing and wash it before reuse

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 irration persists:Get medical advice/attention

Other Hazards Known

Not applicable

Section 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse. Destroy contaminated shoes.

Ingestion:

Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Use water spray to



keep fire-exposed containers cool. Containers may explode in the heat of a fire. Flammable liquid and vapor.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Do not breathe vapor or mist.

Storage:

Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep containers tightly closed.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. See 29CFR 1910.1048 for regulatory requirements pertaining to all occupational exposures to formaldehyde, i.e., from formaldehyde gas, its solutions, and materials that release formaldehyde.

Exposure Limits CAS# 50-00-0: United Kingdom, WEL - TWA: 2 ppm TWA; 2.5 mg/m3 TWA United Kingdom, WEL - STEL: 2 ppm STEL; 2.5 mg/m3 STEL United States OSHA: ; 0.75 ppm TWA; 2 ppm STEL; 0.5 ppm Action Le (Irritant and potential cancer ha zard - see 29 CFR 1910.1048) Belgium - STEL: 0.3 ppm VLE; 0.38 mg/m3 VLE France - VME: 0.5 ppm VME France - VLE: 1 ppm VLE Germany: 0.5 ppm TWA; 0.62 mg/m3 TWA Germany: Skin absorber Japan: 0.5 ppm OEL; 0.61 mg/m3 OEL Malaysia: 0.3 ppm Ceiling; 0.37 mg/m3 Ceiling Netherlands: 2 ppm STEL; 3 mg/m3 STEL Netherlands: 1 ppm MAC; 1.5 mg/m3 MAC Russia: 0.5 mg/m3 TWA Spain: 0.3 ppm VLA-EC; 0.37 mg/m3 VLA-EC CAS# 67-56-1: United Kingdom, WEL - TWA: 200 ppm TWA; 266 mg/m3 TWA United Kingdom, WEL - STEL: 250 ppm STEL; 333 mg/m3 STEL United States OSHA: 200 ppm TWA;



260 mg/m3 TWA Belgium - TWA: 200 ppm VLE; 266 mg/m3 VLE Belgium - STEL: 250 ppm VLE; 333 mg/m3 VLE France - VME: 200 ppm VME; 260 mg/m3 VME France - VLE: 1000 ppm VLE; 1300 mg/m3 VLE Germany: 200 ppm TWA; 270 mg/m3 TWA Germany: Skin absorber Japan: 200 ppm OEL; 260 mg/m3 OEL Malaysia: 200 ppm TWA; 262 mg/m3 TWA Netherlands: 200 ppm MAC; 260 mg/m3 MAC Russia: 5 mg/m3 TWA Spain: 200 ppm VLA-ED; 266 mg/m3 VLA-ED Spain: 250 ppm VLA-EC; 333 mg/m3 VLA-EC CAS# 7732-18-5: Personal Protective Equipment Eyes: Wear chemical splash goggles and face shield.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Color: colorless Odor: pungent odor pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available. Boiling Point: 101 deg C

Freezing/Melting Point: 32 deg F

Autoignition Temperature: Not applicable.

Flash Point: 50 deg C (122.00 deg F)
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: Not available.

Solubility in water: Soluble.

Specific Gravity/Density: Not available.

Molecular Formula: Mixture Molecular Weight: Not available

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Ignition sources, excess heat, confined spaces.

Incompatibilities with Other Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide.



Hazardous Polymerization: Has not been reported.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 50-00-0: LP8925000 CAS# 67-56-1: PC1400000 CAS# 7732-18-5: ZC0110000 LD50/LC50:

CAS# 50-00-0: Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, eye: 750 ug Severe; Draize test, rabbit, eye: 10 mg Severe; Draize test, rabbit, eye: 37% Severe; Draize test, rabbit, skin: 2 mg/24H Severe; Draize test, rabbit, skin: 50 mg/24H Moderate; Inhalation, mouse: LC50 = 454 mg/m3/4H; Inhalation, mouse: LC50 = 505 mg/m3/2H; Inhalation, rat: LC50 = 203 mg/m3; Inhalation, rat: LC50 = 578 mg/m3/2H; Inhalation, rat: LC50 = 250 ppm/2H; Oral, mouse: LD50 = 42 mg/kg; Oral, mouse: LD50 = 385 mg/kg; Oral, mouse: LD50 = 500 mg/kg; Oral, rat: LD50 = 100 mg/kg; Oral, rat: LD50 = 500 mg/kg; Skin, rabbit: LD50 = 270 uL/kg; Skin, rabbit: LD50 = 270 mg/kg.

CAS# 67-56-1: Draize test, rabbit, eye: 40 mg Moderate; Draize test, rabbit, eye: 100 mg/24H Moderate; Draize test, rabbit, skin: 20 mg/24H Moderate; Inhalation, rabbit: LC50 = 81000 mg/m3/14H; Inhalation, rat: LC50 = 64000 ppm/4H; Oral, mouse: LD50 = 7300 mg/kg; Oral, rabbit: LD50 = 14200 mg/kg; Oral, rat: LD50 = 5600 mg/kg; Skin, rabbit: LD50 = 15800 mg/kg.

CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg.

Carcinogenicity:

Formaldehyde - ACGIH: A2 - Suspected Human Carcinogen California: carcinogen, initial date 1/1/88 (gas) NTP: Suspect carcinogen IARC: Group 1 carcinogen Methyl alcohol - Not listed by ACGIH, IARC, or NTP.

Water - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Section 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - TRANSPORT INFORMATION

IATA

Shipping Name: FORMALDEHYDE, SOLUTIONS, FLAMMABLE

Hazard Class: 3 UN Number: 1198 Packing Group: III

IMO

Shipping Name: FORMALDEHYDE, SOLUTIONS, FLAMMABLE

Hazard Class: 3



UN Number: 1198 Packing Group: III

RID/ADR

Shipping Name: FORMALDEHYDE, SOLUTIONS, FLAMMABLE

Hazard Class: 3 UN Number: 1198 Packing group: III

USA RQ: CAS# 50-00-0: 100 lb final RQ; 45.4 kg final RQ USA RQ: CAS# 67-56-1: 5000 lb final RQ; 2270 kg final RQ

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T C

Risk Phrases:

R 45 May cause cancer.

R 10 Flammable.

R 23/24/25 Toxic by inhalation, in contact with skin

and if swallowed.

R 34 Causes burns.

R 43 May cause sensitization by skin contact.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 51 Use only in well-ventilated areas.

WGK (Water Danger/Protection)

CAS# 50-00-0: 2

CAS# 67-56-1: 1

CAS# 7732-18-5: No information available.

Canada

CAS# 50-00-0 is listed on Canada's DSL List.

CAS# 67-56-1 is listed on Canada's DSL List.

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 50-00-0 is listed on Canada's Ingredient Disclosure List.

CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA



CAS# 50-00-0 is listed on the TSCA inventory. CAS# 67-56-1 is listed on the TSCA inventory. CAS# 7732-18-5 is listed on the TSCA inventory

16 Other information

Rev. No./Repl. SDS Generated

version 1

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

MATERIAL SAFETY DATA SHEET



1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Potassium R2

Supplier: Shenzhen Sinsche Technology Co.,Ltd.

ADD: 4/F , T3 Building, Silicon Valley Compound, Qingquan Road, Longhua Street, Longhua District, Shenzhen

City, P.RC 518109.

Tel: +86 (755) 82127315 Fax: +86 (755) 82127860

Email:Sinsche@sinsche.com

Emergency telephone: +86 (755) 82127315 (Mon-Fri 08:30- 18:00)

Chemical Name: Not applicable

CAS No.: Not applicable

Chemical Formula: Not applicable **Chemical Family:** Not applicable

PIN: NA

Intended Use: Determination of Ozone

Date of MSDS Preparation:

Day: 21
Month: June
Year: 2020

2 - COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content
Sodium chloride	231-760-3	7647-14-5	>65%
Sodium tetraphenyl borate	205-605-5	143-66-8	<35%

Section 3 - HAZARDS IDENTIFICATION

CHS Classification

Most Important Hazards

According to ABNT NBR 14725-2

Acute toxicity -oral	Category 1
Acute toxicity -inhalation	Category 2
Acute toxicity -dermal	Category 3



Hazard statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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P103 Read label before use

Precautionary statements - Prevention

P201 Obtain special instructions before use.

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

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P211 Do not spray on an open flame or other ignition source.

P220 Keep/Store away from clothing/.../combustible materials.

P221 Take any precaution to avoid mixing with combustibles/...

P222 Do not allow contact with air.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P230 Keep wetted with ...

P231 Handle under inert gas.

P232 Protect from moisture.

P233 Keep container tightly closed.

P234 Keep only in original container.

Other Hazards Known

Not applicable

Section 4 - FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Never give anything by mouth to an unconscious person. Get medical aid immediately. Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Section 5 - FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes.

Extinguishing Media:



Use water spray, dry chemical, or carbon dioxide.

Section 6 - ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

Section 7 - HANDLING and STORAGE

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Do not ingest or inhale.

Store protected from light.

Storage:

Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 143-66-8: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Color: white
Odor: odorless

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pH: Not available.

Vapor Pressure: Not available.

Viscosity: Not available. Boiling Point: Not available.

Freezing/Melting Point: > 300 deg C Autoignition Temperature: Not available.

Flash Point: Not available.

Explosion Limits, lower: Not available. Explosion Limits, upper: Not available.

Decomposition Temperature: Solubility in water: freely soluble

Specific Gravity/Density:
Molecular Formula: Mixture
Molecular Weight: Not available

Section 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

High temperatures, light, dust generation.

Incompatibilities with Other Materials:

Strong oxidizing agents Hazardous Decomposition Products:

Carbon monoxide, carbon dioxide, oxides of boron.

Hazardous Polymerization: Will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 143-66-8: ED3362500 LD50/LC50: CAS# 143-66-8: Oral, rat: LD50 = 288 mg/kg.

Oral, rat/mice Carcinogenicity:

Sodium tetraphenyl borate - Not listed by ACGIH, IARC, or NTP.

Other:

See actual entry in RTECS for complete information.

Section 12 - ECOLOGICAL INFORMATION

Section 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to

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location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - TRANSPORT INFORMATION

IATA

Not regulated as a hazardous material.

IMC

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

Section 15 - REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 25 Toxic if swallowed.

R 36 Irritating to eyes.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 143-66-8: No information available.

Canada

CAS# 143-66-8 is listed on Canada's DSL List.

CAS# 143-66-8 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 143-66-8 is listed on the TSCA inventory.