

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

<b>Product Name</b>	2-CARBOXY-5-NITROBENZENESULFONIC ACID POTASSIUM SALT
<b>Chemical Name</b>	Not Available
<b>Synonyms</b>	C7-H4-K-N-O7-S; 4-nitro-2-sulfobenzoic acid, potassium sulfonate salt (OAM acid); potassium 2-carboxy-5-nitrobenzenesulfonate
<b>Chemical Formula</b>	C7H4NO7S.K
<b>Other means of identification</b>	Not available
<b>CAS Number</b>	5344-48-9

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

<b>Relevant identified uses</b>	# 22 Int
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#### Details of the manufacturer or supplier of the safety data sheet:

<b>Registered company name</b>	Cohizon Life Sciences Limited
<b>Address</b>	Plot No. 6102/3, 6117-19, 5809-10, GIDC, Ankleshwar Gujarat 393002 India
<b>Telephone</b>	Not Available
<b>Fax</b>	Not Available
<b>Website</b>	Not Available
<b>Email</b>	Not Available

#### Emergency telephone number:

<b>Association / Organisation</b>	Cohizon Life Sciences Limited
<b>Emergency telephone number(s)</b>	(+91) 7046611150/51
<b>Other emergency telephone number(s)</b>	(+91) 6357684904

### SECTION 2 Hazards identification

<b>Classification of the substance or mixture</b>			
<b>Hazard Ratings</b>			
	<b>Min</b>	<b>Max</b>	
<b>Flammability</b>	1 		0 = Minimum
<b>Toxicity</b>	0		1 = Low
<b>Body Contact</b>	0		2 = Moderate
<b>Reactivity</b>	1 		3 = High
<b>Chronic</b>	0		4 = Extreme

#### NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances).

<b>Classification</b>	Non hazardous
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#### Label elements

<b>Hazard pictogram(s)</b>	Not Applicable
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<b>Signal word</b>	Not Applicable
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#### Hazard statement(s)

Not Applicable

#### Precautionary statement(s) Prevention

Not Applicable

#### Precautionary statement(s) Response

Not Applicable

### Precautionary statement(s) Storage

Not Applicable

### Precautionary statement(s) Disposal

Not Applicable

## SECTION 3 Composition / information on ingredients

### Substances

Cas No.	%[weight]	Name
5344-48-9	>98	2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt

### Mixtures

See Section above for composition of substances

## SECTION 4 First aid measures

### Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>Wash out immediately with water.</li> <li>If irritation continues, seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel</li> </ul>
Skin Contact	<p>If skin or hair contact occurs:</p> <ul style="list-style-type: none"> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in the event of irritation.</li> </ul>
Inhalation	<ul style="list-style-type: none"> <li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li> <li>Other measures are usually unnecessary.</li> </ul>
Ingestion	<ul style="list-style-type: none"> <li>Immediately give a glass of water.</li> <li>First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor</li> </ul>

### Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 Firefighting measures

### Extinguishing media

- Foam
- Dry Chemical Powder
- BCF (Where regulations permit)
- Carbon dioxide
- Water Spray or fog – Large fires only.

### Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.
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### Advice for firefighters

<b>Fire Fighting</b>	<ul style="list-style-type: none"> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear breathing apparatus plus protective gloves.</li> <li>Prevent, by any means available, spillage from entering drains or water courses.</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> <li><b>DO NOT approach containers suspected to be hot.</b></li> <li>Cool fire exposed containers with water spray from a protected location.</li> <li>If safe to do so, remove containers from path of fire,</li> <li>Equipment should be thoroughly decontaminated after use</li> </ul>
<b>Fire/Explosion Hazard</b>	<ul style="list-style-type: none"> <li>Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions.</li> <li>Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</li> <li>Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.</li> <li>In the same way as gases and vapours, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC).</li> <li>When processed with flammable liquids/vapors/mists, ignitable (hybrid) mixtures may be formed with combustible dusts. Ignitable mixtures will increase the rate of explosion pressure rise and the Minimum Ignition Energy (the minimum amount of energy required to ignite dust clouds - MIE) will be lower than the pure dust in air mixture. The Lower Explosive Limit (LEL) of the vapour/dust mixture will be lower than the individual LELs for the vapors/mists or dusts.</li> <li>A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.</li> <li>Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters the surrounding area, it will disturb any settled dust layers, forming a second dust cloud, and often initiate a much larger secondary explosion. All large scale explosions have resulted from chain reactions of this type.</li> <li>Dry dust can be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport. ► Build-up of electrostatic charge may be prevented by bonding and grounding.</li> <li>Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.</li> <li>All movable parts coming in contact with this material should have a speed of less than 1-meter/sec.</li> <li>A sudden release of statically charged materials from storage or process</li> </ul>

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	<p>equipment, particularly at elevated temperatures and/ or pressure, may result in ignition especially in the absence of an apparent ignition source.</p> <ul style="list-style-type: none"> <li>One important effect of the particulate nature of powders is that the surface area and surface structure (and often moisture content) can vary widely from sample to sample, depending of how the powder was manufactured and handled; this means that it is virtually impossible to use flammability data published in the literature for dusts (in contrast to that published for gases and vapours).</li> <li>Autoignition temperatures are often quoted for dust clouds (minimum ignition temperature (MIT)) and dust layers (layer ignition temperature (LIT)); LIT generally falls as the thickness of the layer increases.</li> <li><b>Combustion products include.</b> <ul style="list-style-type: none"> <li>carbon monoxide (CO)</li> <li>carbon dioxide (CO<sub>2</sub>)</li> <li>nitrogen oxides (NO<sub>x</sub>)</li> <li>sulphur oxides (SO<sub>x</sub>)</li> <li>metal oxides</li> <li>other pyrolysis products typical of burning organic material.</li> </ul> </li> </ul>
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### SECTION 6 Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

See section 8

#### Environmental precautions

See section 12

#### Methods and material for containment and cleaning up

<b>Minor Spills</b>	<ul style="list-style-type: none"> <li>Clean up all spills immediately.</li> <li>Avoid contact with skin and eyes.</li> <li>Wear impervious gloves and safety glasses.</li> <li>Use dry clean up procedures and avoid generating dust.</li> <li>Vacuum up (consider explosion-proof machines designed to be grounded during storage and use).</li> <li>Do NOT use air hoses for cleaning</li> <li>Place spilled material in clean, dry, sealable, labelled container.</li> </ul>
<b>Major Spills</b>	<ul style="list-style-type: none"> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Control personal contact with the substance, by using protective equipment and dust respirator.</li> <li>Prevent spillage from entering drains, sewers or water courses.</li> <li>Avoid generating dust.</li> <li>Sweep, shovel up. Recover product wherever possible.</li> <li>Put residues in labelled plastic bags or other containers for disposal.</li> <li>If contamination of drains or waterways occurs, advise emergency services</li> </ul>

Personal Protective Equipment advice is contained in Section 8 of the SDS

### SECTION 7 Handling and storage

#### Precautions for safe handling

<b>Safe Handling</b>	<ul style="list-style-type: none"> <li>Limit all unnecessary personal contact.</li> <li>Wear protective clothing when risk of exposure occurs</li> <li>Use in a well-ventilated area.</li> <li>Avoid contact with incompatible materials.</li> </ul>
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	<ul style="list-style-type: none"> <li>• When handling, <b>DO NOT eat, drink or smoke.</b></li> <li>• Keep containers securely sealed when not in use.</li> <li>• Avoid physical damage to containers.</li> <li>• Always wash hands with soap and water after handling.</li> <li>• Work clothes should be laundered separately.</li> <li>• Use good occupational work practice.</li> <li>• Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>• Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> <li>• Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions).</li> <li>• Minimize airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame.</li> <li>• Establish good housekeeping practices.</li> <li>• Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.</li> <li>• Use continuous suction at points of dust generation to capture and minimize the accumulation of dusts. Particular attention should be given to overhead and hidden horizontal surfaces to minimize the probability of a "secondary" explosion. According to NFPA Standard 654, dust layers 1/32 in.(0.8 mm) thick can be sufficient to warrant immediate cleaning of the area.</li> <li>• Do not use air hoses for cleaning.</li> <li>• Minimize dry sweeping to avoid generation of dust clouds. Vacuum dust-accumulating surfaces and remove to a chemical disposal area. Vacuums with explosion-proof motors should be used.</li> <li>• Control sources of static electricity. Dusts or their packages may accumulate static charges, and static discharge can be a source of ignition.</li> <li>• Solids handling systems must be designed in accordance with applicable standards (e.g. NFPA including 654 and 77) and other national guidance.</li> <li>• Do not empty directly into flammable solvents or in the presence of flammable vapors.</li> <li>• The operator, the packaging container and all equipment must be grounded with electrical bonding and grounding systems. Plastic bags and plastics cannot be grounded, and antistatic bags do not completely protect against development of static charges.</li> <li>• Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source.</li> <li>• <b>Do NOT cut, drill, grind or weld such containers.</b></li> <li>• In addition ensure such activity is not performed near full, partially empty or empty containers without appropriate workplace safety authorisation or permit.</li> </ul>
Other information	<ul style="list-style-type: none"> <li>• Store in original containers.</li> <li>• Keep containers securely sealed.</li> <li>• Store in a cool, dry area protected from environmental extremes.</li> <li>• Store away from incompatible materials and foodstuff containers</li> <li>• Protect containers against physical damage and check regularly for leaks.</li> <li>• Observe manufacturer's storage and handling recommendations contained within this SDS</li> </ul> <p>For major quantities:</p> <ul style="list-style-type: none"> <li>• Consider storage in bunded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).</li> <li>• Ensure that accidental discharge to air or water is the subject of a contingency</li> </ul>

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	<p>disaster management plan; this may require</p> <ul style="list-style-type: none"> <li>consultation with local authorities.</li> </ul>
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### Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>Lined metal can, lined metal pail/ can.</li> <li>Plastic pail.</li> <li>Polyliner drum.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks</li> </ul>
<b>Storage incompatibility</b>	<ul style="list-style-type: none"> <li>Avoid contamination of water, foodstuffs, feed or seed.</li> <li>Avoid reaction with oxidising agents</li> </ul>

### Control Parameters

Occupational Exposure Limits (OEL)

### INGREDIENT DATA

Not Available

Ingredient	Original IDLH	Revised IDLH
2-Carboxy-5- Nitrobenzene sulfonic Acid potassium salt	Not Available	Not Available

### Exposure controls





<b>Appropriate engineering controls</b>	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure.</p> <ul style="list-style-type: none"> <li>Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.</li> <li>Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.</li> <li>If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of: <ul style="list-style-type: none"> <li>(a) particle dust respirators, if necessary, combined with an absorption cartridge;</li> <li>(b) filter respirators with absorption cartridge or canister of the right type;</li> <li>(c) fresh-air hoods or masks</li> </ul> </li> <li>Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.</li> <li>Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.</li> </ul> <p>Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh</p>
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	circulating air required to efficiently remove the contaminant.	
	<b>Type of Contaminant</b>	<b>Air Speed</b>
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion).	1-2.5 m/s (200-500 ft/min)
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)
	<b>Which each range the appropriate value depends on</b>	
	Lower end of the range	Upper end of the range
	1. Room air currents minimal or favourable to capture	1. Disturbing room air currents
	2. Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
	3. Intermittent, low production	3: High production, heavy use
	4. Large hood or large air mass in motion	4: Small hood-local control only
Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore, the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 4-10 m/s (800-2000 ft/min) for extraction of crusher dusts generated 2 metres distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used		
<b>Individual protection measures, such as personal protective equipment</b>	   	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>Safety glasses with side shields</li> <li>Chemical goggles.</li> <li>Full face shield may be required for supplementary but never for primary protection of eyes.</li> <li>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.</li> <li>Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</li> </ul>	
<b>Skin protection</b>	See Hand protection below	
<b>Hands/feet protection</b>	<p>The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice.</p>	

	<p>Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:</p> <ul style="list-style-type: none"> <li>• frequency and duration of contact,</li> <li>• chemical resistance of glove material,</li> <li>• glove thickness and</li> <li>• dexterity</li> </ul> <p>Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).</p> <ul style="list-style-type: none"> <li>• When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended.</li> <li>• Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use.</li> <li>• Contaminated gloves should be replaced.</li> </ul> <p>As defined in ASTM F-739-96 in any application, gloves are rated as:</p> <ul style="list-style-type: none"> <li>• Excellent when breakthrough time &gt; 480 min</li> <li>• Good when breakthrough time &gt; 20 min</li> <li>• Fair when breakthrough time &lt; 20 min</li> <li>• Poor when glove material degrades</li> </ul> <p>For general applications, gloves with thickness typically greater than 0.35 mm, are recommended.</p> <p>It should be emphasized that glove thickness is not necessarily a good predictor of glove resistance to a specific chemical, as the permeation efficiency of the glove will be dependent on the exact composition of the glove material. Therefore, glove selection should also be based on consideration of the task requirements and knowledge of breakthrough times.</p> <p>Glove thickness may also vary depending on the glove manufacturer, the glove type and the glove model. Therefore, the manufacturers' technical data should always be taken into account to ensure selection of the most appropriate glove for the task. Note: Depending on the activity being conducted, gloves of varying thickness may be required for specific tasks. For example:</p> <ul style="list-style-type: none"> <li>• Thinner gloves (down to 0.1 mm or less) may be required where a high degree of manual dexterity is needed. However, these gloves are only likely to give short duration protection and would normally be just for single use applications, then disposed of.</li> <li>• Thicker gloves (up to 3 mm or more) may be required where there is a mechanical (as well as a chemical) risk i.e. where there is abrasion or puncture potential</li> </ul> <p>Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.</p> <p>Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.</p> <ul style="list-style-type: none"> <li>• Polychloroprene</li> <li>• nitrile rubber</li> <li>• butyl rubber</li> <li>• fluor caoutchouc</li> </ul>
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	<ul style="list-style-type: none"> <li>polyvinyl chloride.</li> </ul> Gloves should be examined for wear and/ or degradation constantly.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	No special equipment needed when handling small quantities. <b>Other wise:</b> <ul style="list-style-type: none"> <li>Overalls</li> <li>Barrier cream.</li> <li>Eye wash unit</li> </ul>

### Respiratory protection

Type -P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	- -	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

- Negative pressure demand \*\* - Continuous flow
- A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)
- Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

### SECTION 9 Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Appearance</b>	White or off-white solid; does not mix well with water		
<b>Physical state</b>	Divided Solid	<b>Relative density (Water = 1)</b>	Not Available
<b>Odour</b>	Not Available	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Applicable	<b>Decomposition temperature (°C)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Applicable	<b>Viscosity (cSt)</b>	Not Applicable

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<b>Initial boiling point and boiling range (°C)</b>	Not Applicable	<b>Molecular weight (g/mol)</b>	285.27
<b>Flash point (°C)</b>	Not Available	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Applicable	<b>Explosive properties</b>	Not Available
<b>Flammability</b>	Highly Flammable	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Applicable
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Negligible
<b>Vapour pressure (kPa)</b>	Negligible	<b>Gas group</b>	Not Available
<b>Solubility in water</b>	Partly miscible	<b>pH as a solution (1%)</b>	Not Applicable
<b>Vapour density (Air = 1)</b>	Not Applicable	<b>VOC g/L</b>	Not Applicable
<b>Heat of Combustion (kJ/g)</b>	Not Available	<b>Ignition Distance (cm)</b>	Not Available
<b>Flame Height (cm)</b>	Not Available	<b>Flame Duration (s)</b>	Not Available
<b>Enclosed Space Ignition Time Equivalent (s/m3)</b>	Not Available	<b>Enclosed Space Ignition</b>	Not Available
		<b>Deflagration Density (g/m3)</b>	

## SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

## SECTION 11 Toxicological information

### Information on toxicological effects

a) Acute Toxicity	Based on available data, the classification criteria are not met.
b) Skin Irritation/Corrosion	Based on available data, the classification criteria are not met.
c) Serious Eye Damage/Irritation	Based on available data, the classification criteria are not met.
d) Respiratory or Skin sensitisation	Based on available data, the classification criteria are not met.
e) Mutagenicity	Based on available data, the classification criteria are not met.
f) Carcinogenicity	Based on available data, the classification criteria are not met.
g) Reproductivity	Based on available data, the classification criteria are not met.
h) STOT - Single Exposure	Based on available data, the classification criteria are not met.
i) STOT - Repeated Exposure	Based on available data, the classification criteria are not met.
j) Aspiration Hazard	Based on available data, the classification criteria are not met.

<b>Inhaled</b>	<ul style="list-style-type: none"> <li>The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.</li> <li>Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled.</li> <li>If prior damage to the circulatory or nervous systems has occurred or if</li> </ul>
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# MATERIAL SAFETY DATA SHEET

## 2-Carboxy -5-nitrobenzene sulfonic acid potassium salt

Revision Date: 21-12-24

Revision Number: 2.1

	kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.
<b>Ingestion</b>	<ul style="list-style-type: none"> <li>The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence</li> </ul>
<b>Skin Contact</b>	<ul style="list-style-type: none"> <li>The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.</li> </ul>
<b>Eye</b>	<ul style="list-style-type: none"> <li>Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.</li> </ul>
<b>Chronic</b>	<ul style="list-style-type: none"> <li>Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.</li> <li>Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung.</li> </ul>

2-CARBOXY-5- NITROBENZENESULFONIC ACID POTASSIUM SALT	TOXICITY	IRRITATION
	Not Available	Not Available
<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances	

<b>Acute Toxicity</b>	×	<b>Carcinogenicity</b>	×
<b>Skin Irritation/Corrosion</b>	×	<b>Reproductivity</b>	×
<b>Serious Eye Damage/Irritation</b>	×	<b>STOT - Single Exposure</b>	×
<b>Respiratory or Skin sensitisation</b>	×	<b>STOT - Repeated Exposure</b>	×
<b>Mutagenicity</b>	×	<b>Aspiration Hazard</b>	×
<b>Legend:</b> × – Data either not available or does not fill the criteria for classification ✓ – Data available to make classification			

### SECTION 12 Ecological information

#### Toxicity

2-CARBOXY-5- NITROBENZENESULFONIC ACID POTASSIUM SALT	End Point	Test Duration (hr.)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>Legend:</b>	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

#### Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2-CARBOXY-5- NITROBENZENESULFONIC ACID POTASSIUM SALT	High	High

### Bio accumulative potential

Ingredient	Bioaccumulation
2-CARBOXY-5- NITROBENZENESULFONIC ACID POTASSIUM SALT	Low (Log KOW = 1.8084)

### Mobility in soil

Ingredient	Mobility
2-CARBOXY-5- NITROBENZENESULFONIC ACID POTASSIUM SALT	LOW (Log KOC = 10)

## SECTION 13 Disposal considerations

### Waste treatment methods

<b>Product / Packaging disposal</b>	<p>Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.</p> <p>A Hierarchy of Controls seems to be common - the user should investigate:</p> <ul style="list-style-type: none"> <li>• Reduction</li> <li>• Reuse</li> <li>• Recycling</li> <li>• Disposal (if all else fails)</li> </ul> <p>This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. In most instances the supplier of the material should be consulted.</p> <ul style="list-style-type: none"> <li>• <b>DO NOT allow wash water from cleaning or process equipment to enter drains</b></li> <li>• It may be necessary to collect all wash water for treatment before disposal</li> <li>• In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>• Where in doubt contact the responsible authority</li> </ul>
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## SECTION 14 Transport information

### Labels Required

Marine Pollutant	No
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Land transport (UN) : NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code/ GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

### 14.7 Maritime transport in bulk according to IMO instruments

#### 14.7.1 Transport in bulk in accordance with Annex II of MARPOL and the IBC Code

Not Applicable

#### 14.7.2 Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product Name	Ship Type
2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt	Not Available

#### 14.7.3 Transport in bulk in accordance with the IGC Code

Product Name	Ship Type
2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt	Not Available

### SECTION 15 Regulatory information

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

2-Chloro-3-(trifluoromethyl)pyridine is found on the following lists

Not Applicable

#### Additional Regulatory Information

Not Applicable

#### National Inventory Status

National Inventory	Status
Australia - AIIIC / Australia Non-Industrial Use	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Canada - DSL	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Canada - NDSL	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
China - IECSC	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Europe - EINEC / ELINCS / NLP	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Japan - ENCS	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Korea - KECI	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
New Zealand - NZIoC	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Philippines - PICCS	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
USA - TSCA	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Taiwan - TCSI	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Mexico - INSQ	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Vietnam - NCI	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
Russia - FBEPH	No (2-Carboxy-5-Nitrobenzenesulfonic Acid potassium salt)
<b>Legend:</b>	<p>Yes = All CAS declared ingredients are on the inventory</p> <p>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.</p>

### SECTION 16 Other information

Revision Date	21/12/2024
Initial Date	21/12/2024

#### SDS Version Summary

Version	Date of Update	Sections Updated
2.1	21/12/2024	Name

#### Other Information:

Classification of the preparation and its individual components has drawn on official and authoritative sources.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### Definitions and abbreviations

PC - TWA: Permissible Concentration-Time Weighted Average

PC - STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit

IDLH: Immediately Dangerous to Life or Health Concentrations.

ES: Exposure Standard

OSF: Odour Safety Factor

NOAEL: No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: Bio Concentration Factors

BEI: Biological Exposure Index  
DNEL: Derived No-Effect Level  
PNEC: Predicted no-effect concentration  
MARPOL: International Convention for the Prevention of Pollution from Ships  
IMSBC: International Maritime Solid Bulk Cargoes Code  
IGC: International Gas Carrier Code  
IBC: International Bulk Chemical Code

AIIC: Australian Inventory of Industrial Chemicals  
DSL: Domestic Substances List  
NDSL: Non-Domestic Substances List  
IECSC: Inventory of Existing Chemical Substance in China  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
NLP: No-Longer Polymers  
ENCS: Existing and New Chemical Substances Inventory  
KECI: Korea Existing Chemicals Inventory  
NZIoC: New Zealand Inventory of Chemicals  
PICCS: Philippine Inventory of Chemicals and Chemical Substances  
TSCA: Toxic Substances Control Act  
TCSI: Taiwan Chemical Substance Inventory  
INSQ: Inventario Nacional de Sustancias Químicas  
NCI: National Chemical Inventory  
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

**This Material Safety Data Sheet (MSDS) has been prepared in accordance with our company standards and is intended solely for the use of trained personnel. The information provided herein is believed to be accurate as of the date of issue, but no warranty, express or implied, is made regarding its accuracy, completeness, or suitability for any particular purpose. The user is responsible for ensuring safe conditions and compliance with applicable laws and regulations.**