






## Sodium and potassium salts

Substance	Hazard	Comment
<b>Sodium and potassium chloride, bromide and iodide</b> <i>Solid &amp; solution</i>	Currently not classified as hazardous	People have been killed through consuming very large amounts of salt. At 'normal' levels, can cause high blood pressure, hence heart disease. Adults should not eat more than 6 g/day, children less. Potassium chloride is approved food additive, E508, used as a 'low-salt' substitute.
<b>Sodium sulfate(VI)</b> <i>Also potassium sulfate(VI)</i> <i>Solid &amp; solution</i>		Hydrated sodium sulfate(VI), Na <sub>2</sub> SO <sub>4</sub> ·10H <sub>2</sub> O is known as Glauber's salt. Sodium sulfate(VI) is an approved food additive, E514, as is the potassium salt, E515.
<b>Sodium hydrogensulfate(VI) (bisulfate)</b> <i>Solid and concentrated solution</i> <i>(if 0.25 M or more)</i>	 CORROSIVE	DANGER: Causes serious eye damage. It is strongly acidic because of acidic hydrogen in NaHSO <sub>4</sub> . It is used in some toilet cleaners.
<b>Sodium hydrogensulfate(VI) (bisulfate)</b> <i>Dilute solutions (if less than 0.25 M but 0.1 M or more)</i>	 IRRITANT	WARNING: Causes serious eye irritation. It is strongly acidic because of acidic hydrogen in NaHSO <sub>4</sub> .
<b>Sodium hydrogensulfate(VI) (bisulfate)</b> <i>Very dilute solutions (if less than 0.1 M)</i>	Currently not classified as hazardous	It is strongly acidic because of acidic hydrogen in NaHSO <sub>4</sub> .
<b>Sodium and potassium ethanedioate (oxalate)</b> <i>Solid</i>	 HARMFUL	WARNING: harmful if swallowed and in contact with skin.
<b>Sodium and potassium ethanedioate (oxalate)</b> <i>Solution</i>	Currently not classified as hazardous	Note that all sodium and potassium ethanedioate (oxalate) solutions are currently not classified as hazardous <b>Except</b> potassium ethanedioate is WARNING: HARMFUL if swallowed (if 1.5 M or more).
<b>Sodium nitrate(V)</b> <i>Also potassium nitrate(V)</i> <i>Solid and solutions</i>	  OXIDISING IRRITANT	WARNING: Oxidiser Sodium nitrate(V) solid and solutions are harmful if swallowed (if more than 3 M) and irritating to eyes and skin (if more than 1 M).
<b>Sodium or potassium carbonate and hydrogencarbonate</b>		See CLEAPSS Student Safety Sheet 33
<b>Sodium chlorate(I) (hypochlorite)</b>		See CLEAPSS Student Safety Sheet 41
<b>Sodium or potassium chromate(VI) or dichromate(VI)</b>		See CLEAPSS Student Safety Sheet 47
<b>Sodium or potassium manganate(VII) (permanganate)</b>		See CLEAPSS Student Safety Sheet 48

## Typical control measures to reduce risk

- Wear eye protection.
- Avoid raising dust.

## Assessing the risks

- What are the details of the activity to be undertaken? What are the hazards?
- What is the chance of something going wrong?  
*eg specks of solid transferred into the eye by rubbing with a contaminated finger.*
- How serious would it be if something did go wrong?  
*eg are there hazardous reaction products (such as chlorine from the electrolysis of sodium chloride)?*
- How can the risk(s) be controlled for this activity?  
*eg can it be done safely? Does the procedure need to be altered? Should goggles or safety spectacles be worn?*

## Emergency action

In all emergency situations, alert the responsible adult immediately. Be aware that actions may include the following:

- In the eye Irrigate the eye with gently-running tap water for at least 20 minutes. Call 999/111.
- In the mouth/swallowed Do no more than rinse and spit with drinking water. Do **not** induce vomiting. Call 999/111.
- Spilt on the skin or clothing Brush solid off contaminated clothing. Irrigate the affected area with gently-running tap water for at least 20 minutes as appropriate. Call 999/111 as appropriate. Rinse clothing.
- Spilt on the floor, bench, etc Brush up solid spills, trying to avoid raising dust, then wipe with a damp cloth. Wipe up solutions spills and rinse well