

# Material Safety Data Sheet

RED KNIGHT



## 1. Identification of the material and supplier

Trade name of product : RED KNIGHT  
ADG : SODIUM HYDROXIDE SOLUTION  
Supplier : ECOLAB PTY LTD (A.B.N. 59 000 449 990)  
2 Drake Avenue, Macquarie Park NSW 2113  
Customer Service phone: 1 800 022 002  
Free Fax Number: 1 800 655 679  
Emergency telephone number : 1 800 124 170  
Material uses : Cleaning product

Product dilution information : Use up to 14% with water

Date of issue : 27 June 2013

## 2. Hazards identification

	Product AS SOLD	Product AT USE DILUTION
Statement of hazardous/dangerous nature	: <b>Classified as hazardous</b> according to the criteria of Safe Work Australia and <b>classified as dangerous goods</b> according to the ADG Code.	<b>Classified as hazardous</b> according to the criteria of Safe Work Australia and <b>not classified as dangerous goods</b> according to the ADG Code.
Classification	: C - Corrosive	Xi - Irritant
Risk phrases	: R34- Causes burns. R41- Risk of serious damage to eyes.	R36/38- Irritating to eyes and skin.
Safety phrases	: S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of water. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).	S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of water. S37/39- Wear suitable gloves and eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## 3. Composition/information on ingredients

### Product AS SOLD

Ingredient name	CAS number	Concentration % (w/w)
sodium hydroxide	1310-73-2	<10
disodium metasilicate	6834-92-0	<10

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

### Product AT USE DILUTION

Ingredient name	CAS number	Concentration % (w/w)
sodium hydroxide	1310-73-2	<10

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

## 4. First-aid measures

	Product AS SOLD	Product AT USE DILUTION
<b>Eye contact</b>	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin contact</b>	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.	In case of contact, immediately flush skin with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Inhalation</b>	: If inhaled, remove to fresh air.	Remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	: Do not induce vomiting. Rinse mouth; then drink one or two large glasses of water. Contact a doctor or a Poisons Information Centre (Phone: 13 11 26). Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.	Do not induce vomiting. Rinse mouth; then drink one or two large glasses of water. Contact a doctor or a Poisons Information Centre (Phone: 13 11 26).
<b>Notes to physician</b>	: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, respiratory depression and convulsions may be needed.	No specific treatment. Treat symptomatically.

## 5. Fire-fighting measures

	Product AS SOLD
<b>Hazchem code</b>	: 2R
<b>Extinguishing media</b>	: Use an extinguishing agent suitable for the surrounding fire.
<b>Fire-fighting media and instructions</b>	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
<b>Fire/explosion hazards</b>	: No specific hazard.
<b>Special protective equipment for fire-fighters</b>	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
<b>Hazardous thermal decomposition products</b>	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides

## 6. Accidental release measures

	Product AS SOLD	Product AT USE DILUTION
<b>Personal precautions</b>	: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
<b>Environmental precautions</b>	: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

## 6. Accidental release measures

<b>Methods for cleaning up</b>	<p>: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p>	<p>Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p>
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**Note:** see section 8 for personal protective equipment and section 13 for waste disposal.

## 7. Handling and storage

	<b>Product AS SOLD</b>	<b>Product AT USE DILUTION</b>
<b>Handling</b>	<p>: Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.</p>	<p>Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. 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.</p>
<b>Storage</b>	<p>: Keep container tightly closed. Keep container in a cool, well-ventilated area.</p>	<p>Keep container tightly closed. Keep container in a cool, well-ventilated area.</p>

## 8. Exposure controls/personal protection

### Product AS SOLD

#### Occupational exposure limits

Ingredient name	Exposure limits
sodium hydroxide	<p><b>Safe Work Australia (Australia, 8/2005).</b> PEAK: 2 mg/m<sup>3</sup> 15 minute(s).</p>

## 8. Exposure controls/personal protection

	Product AS SOLD	Product AT USE DILUTION
<b>Engineering measures</b>	: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
<b><u>Personal protection</u></b>		
<b>Eyes</b>	: Wear chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.	Eye protection should be used when splashing may occur.
<b>Hands</b>	: Use chemical-resistant, impervious gloves. Recommended: Elbow length PVC gloves.	Use chemical-resistant, impervious gloves.
<b>Respiratory</b>	: If ventilation is inadequate, use respirator that will protect against organic vapour and dust/mist. Respiratory protection should conform to AS/NZS 1715 and AS/NZS 1716.	No protective equipment is needed under normal use conditions.
<b>Skin</b>	: Use synthetic apron, other protective equipment as necessary to prevent skin contact.	Use synthetic apron, other protective equipment as necessary to prevent skin contact.
<b>Hygiene measures</b>	: 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.	

## 9. Physical and chemical properties

	Product AS SOLD	Product AT USE DILUTION
<b>Physical state</b>	: Liquid.	Liquid.
<b>Colour</b>	: Red	Red
<b>Odour</b>	: Faint odour	Faint odour
<b>pH</b>	: 13 to 14 [Conc. (% w/w): 100%]	10 to 13
<b>Flash point</b>	: Product does not support combustion.	Product does not support combustion.
<b>Relative density</b>	: 1.04 to 1.07	
<b>Solubility</b>	: Easily soluble in the following materials: cold water and hot water.	

## 10. Stability and reactivity

	Product AS SOLD
<b>Stability</b>	: The product is stable.
<b>Conditions to avoid</b>	: No specific data.
<b>Materials to avoid</b>	: Reactive or incompatible with the following materials: acids. Slightly reactive or incompatible with the following materials: metals.
<b>Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Potential acute health effects

Product AS SOLD	
Inhalation	: May give off gas, vapour or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	: May cause burns to mouth, throat and stomach.
Skin contact	: Corrosive to the skin. Causes burns.
Eye contact	: Corrosive to eyes. Causes burns.

### Product AT USE DILUTION

No known significant effects or critical hazards.

Exposure can cause nausea, headache and vomiting.

Irritating to skin.

Irritating to eyes.

### Potential chronic health effects

Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

## 12. Ecological information

### Product AS SOLD

Ecotoxicity data	: Not available.
Persistence/degradability	: Not available.
Mobility	: Not available.
Other adverse effects	: No known significant effects or critical hazards.

## 13. Disposal considerations

Product AS SOLD	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### Product AT USE DILUTION

The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## 14. Transport information

### Product AS SOLD

## 14. Transport information

Regulation	UN number	Proper shipping name	Classes	Packing group	Additional information
ADG	UN1824	SODIUM HYDROXIDE SOLUTION	8	II	<b>Hazchem code</b> 2R
IMDG	UN1824	SODIUM HYDROXIDE SOLUTION	8	II	<b>Emergency schedules (EmS)</b> F-A, S-B

**Product AT USE DILUTION**  
Not intended for transport.

## 15. Regulatory information

<b>AU Classification</b>	<b>Product AS SOLD</b> : <b>Classified as hazardous</b> according to the criteria of Safe Work Australia and <b>classified as dangerous goods</b> according to the ADG Code. C - Corrosive R34- Causes burns. R41- Risk of serious damage to eyes.	<b>Product AT USE DILUTION</b> <b>Classified as hazardous</b> according to the criteria of Safe Work Australia and <b>not classified as dangerous goods</b> according to the ADG Code. Xi - Irritant R36/38- Irritating to eyes and skin.
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**Australia inventory (AICS)** : All substances are listed on AICS or exempt.

### Standard for the Uniform Scheduling of Medicines and Poisons

S5

### Control of Scheduled Carcinogenic Substances

<u>Ingredient name</u>	<u>Schedule</u>
No listed substance	

## 16. Other information

<b>Prepared by</b>	Regulatory Affairs
<b>Date of previous issue</b>	: 23 April 2012
<b>References</b>	: -ADG Code - Australian Transport of Dangerous Goods -Adopted National Exposure Standard for Atmospheric Contaminants in the Occupational Environment -Approved Criteria for Classifying Hazardous Substances -List of Designated Hazardous Substances -National Code of Practice for the Labelling of Workplace Substances -National Code of Practice for the Preparation of Material Safety Data Sheets -National Model Regulations for the Control of Scheduled Carcinogenic Substances -National Model Regulations for the Control of Workplace Hazardous Substances -Standard for the Uniform Scheduling of Medicines and Poisons

### Disclaimer

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.