

Section 1 – Identification of the Material and Supplier

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Chemical nature: Water solution of ingredients.
Trade Name: **CROSSFIRE**
Product Use: Detergent degreaser.
Creation Date: **August, 2013**
This version issued: **September, 2016** and is valid for 5 years from this date.

Section 2 – Hazards Identification

GHS Pictogram

GHS05: Corrosion.
GHS07: Exclamation mark



GHS Signal word: DANGER

HAZARD CLASSIFICATION

Serious eye damage.
Skin irritation.

HAZARD STATEMENT:

H318: Causes serious eye damage.
H315: Causes skin irritation.
AUH066: Repeated exposure may cause skin dryness or cracking.

PREVENTION

P102: Keep out of reach of children.
P264: Wash affected areas thoroughly after handling.
P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P301+P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Wash with plenty of soap and water.
P363: Wash contaminated clothing before reuse.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P390: Absorb spillage to prevent material damage.
P391: Collect spillage.
P370+P378: Not combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires.

STORAGE

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

DISPOSAL

P501: Dispose of contents and containers to landfill.

Emergency Overview

Physical Description & Colour: Blue liquid.

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Odour: Mild odour.

Major Health Hazards: Causes serious eye damage. Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

SUSMP Classification: S5 (CAUTION)

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is an inhalation irritant. Symptoms may include headache, irritation of nose and throat and increased secretion of mucous in the nose and throat. Other symptoms may also become evident, but they should disappear after exposure has ceased.

Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: Available data indicates that this product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term Exposure: Repeated exposure may cause skin dryness or cracking.

Eye Contact:

Short Term Exposure: Causes severe eye damage. Severe eye irritation, watering and redness, can cause burns to the eye. Risk of serious or permanent eye lesions.

Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: 2-butoxyethanol is Class 3 - unclassifiable as to carcinogenicity to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

Section 3 – Composition/Information on Ingredients

Ingredients	CAS No	Conc., %	TWA (mg/m ³)	STEL (mg/m ³)
2-Butoxyethanol	111-76-2	<10	96.9	242
Dodecylbenzene Sulfonic Acid	27176-87-0	3-5	not set	not set
Sodium metasilicate	6834-92-0	<2	not set	not set
Sodium hydroxide	1310-73-2	<2	2	Peak
Other non hazardous ingredients	various	<20	not set	not set
Water	7732-18-5	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 – First Aid Measures

General Information:

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You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If irritation occurs, contact a Poisons Information Centre, or call a doctor. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. In severe cases, symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 – Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.

Fire decomposition products from this product are likely to be irritating if inhaled.

Extinguishing Media: Not combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 – Accidental Release Measures

Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

Section 7 – Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Make sure that containers of this product are kept tightly closed. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Some liquid preparations settle or separate on standing and may require stirring before use. Check packaging - there may be further storage instructions on the label.

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Section 8 – Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	TWA (mg/m ³)	STEL (mg/m ³)
2-Butoxyethanol	96.9	242
Sodium hydroxide	2	Peak

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Eye Protection: Eye protection such as protective glasses or goggles is recommended when this product is being used.

Skin Protection: Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, Viton, nitrile, butyl rubber, Barricade, neoprene, Teflon, polyethylene, PE/EVAL, Saranex, Responder.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being handled commercially.

Section 9 – Physical and Chemical Properties

Physical Description & colour:	Blue liquid.
Odour:	Mild odour.
Boiling Point:	Approximately 100°C at 100kPa.
Freezing/Melting Point:	Below 0°C.
Volatiles:	Water component.
Vapour Pressure:	2.37 kPa at 20°C (water vapour pressure).
Vapour Density:	As for water.
Specific Gravity:	1.05
Water Solubility:	Completely soluble in water.
pH:	12.0-13.0 (as supplied)
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	As for water.
Coeff Oil/water Distribution:	No data
Autoignition temp:	Not applicable - does not burn.

Section 10 – Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: Keep containers tightly closed.

Incompatibilities: acids, strong oxidising agents, zinc, tin, aluminium and their alloys.

Fire Decomposition: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Sodium compounds, silicon compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

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Section 11 – Toxicological Information

Toxicity: 2-butoxyethanol is a severe eye irritant. Results of skin irritation studies are conflicting; however, it is considered to be a mild to moderate skin irritant in test animals. Contact dermatitis has been reported in a few cases. It is well absorbed via the inhalational, oral and dermal routes. Absorption studies in various species, including humans, have shown that 2-butoxyethanol is rapidly absorbed through the skin, including absorption from aqueous solutions. The respiratory uptake in volunteers in inhalational studies was approximately 57-78% of the inspired amount. Human studies indicate that dermal absorption of vapour is approximately 20% of the total vapour uptake. Following absorption, it is widely distributed throughout the body. The ingestion of large quantities of 2-butoxyethanol may result in coma, metabolic acidosis, shock and respiratory distress.

The main effect observed in both acute and repeated dose animal toxicity studies is haematotoxicity, with the principal haemolytic agent being BAA the major metabolite. Effects other than haemolysis which have been observed in repeated dose studies include changes to the liver, kidney, spleen and thymus, with these effects considered secondary to haemolysis as they are seen at levels at or above haematotoxic doses.

In fertility studies, minor changes in sperm concentration and the oestrous cycle were noted in a drinking water rat study. 2-butoxyethanol has tested negative in a wide variety of well conducted in vitro assays, including gene mutation, chromosomal aberration and DNA effect assays.

There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients

Ingredient	Hazard Statements
2-Butoxyethanol	H332: Harmful if inhaled. H312: Harmful in contact with skin. H302: Harmful if swallowed. H319: Causes serious eye irritation. H315: Causes skin irritation.
Dodecylbenzene Sulfonic Acid	H302: Harmful if swallowed. H311: Toxic in contact with skin. H314: Causes severe skin burns and eye damage. H318: Causes serious eye damage.
Sodium metasilicate	H314: Causes severe skin burns and eye damage. H335: May cause respiratory irritation.
Sodium hydroxide	H314: Causes severe skin burns and eye damage.

Health Effects – Acute

Swallowed: May be irritating to digestive system if swallowed.

Eye: Causes serious eye damage.

Skin: Causes skin irritation.

Inhaled: Avoid breathing vapour, spray or fumes.

Section 12 – Ecological Information

Insufficient data to be sure of status. However, until diluted or neutralised it will kill all aquatic organisms it contacts due to extreme pH.

Biodegradation studies indicate that 2-butoxyethanol will be readily degraded by micro-organisms present at sewage treatment plants. Ready biodegradability tests showed that it achieved a biodegradation rate of greater than 77% after 3 days and 100% after 7 days. A 20-day biochemical oxygen demand test and an OECD 28-day closed bottle test gave it degradation rates of 75% and 88% respectively. Literature data confirm these results.

Section 13 – Disposal Considerations

Disposal: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Section 14 – Transport Information

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

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Section 15 – Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

The following ingredients: 2-Butoxyethanol (an ethylene glycol monoalkyl ether), Sodium metasilicate (an alkaline salt), Sodium hydroxide, are mentioned in the SUSMP.

Section 16 – Other Information

This SDS contains only safety-related information. For other data see product literature.

Emergency Contact: Phone 13 11 26 (Australia wide)

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 th edition)
AICS	Australian Inventory of Chemical Substances
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

Please read all labels carefully before using product.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

This SDS is prepared in accord with the SWA document “Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals” (February 2016).

End of Safety Data Sheet

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