

1. Identification of the substance/mixture and of the company/undertaking

Product identifier

Trade name EcOSuppressant

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

Use Dust Suppression

Manufacturer or supplier's details:

Name: ARC Innovations (PTY)LTD

Address: 82 Bonnyvale road, Norton Home Estates

Benoni, 1501

In case of an emergency contact either Cyril Attwell (0784563833) or Umar Kadwa (0844560011)

2. Hazards Identification

Classification of the substance or mixture

South Africa. GHS Classification and Labelling of Chemicals - SANS 10234

Classification	Acute oral toxicity	Category 4
	Skin irritation	Category 2
	Serious eye damage	Category 1
	Target Organ Systemic Toxicant - Single exposure	Category 3
	Specific target organ toxicity - single exposure	Category 3

Label elements

South Africa. GHS Classification and Labelling of Chemicals - SANS 10234

Pictogram





Signal word	Danger
Hazard statements	H302: Harmful if swallowed.H315: Causes skin irritation. H318: Causes serious eye damage. H336: May cause drowsiness or dizziness. H314: Causes severe skin burns and eye damage
Precautionary statements	
Prevention	P280: Wear protective gloves/ protective clothing/ eye protection/ faceprotection. P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P260: Do not breathe dust or mist.
Response	P303 + P361 + P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. P330: Rinse mouth. P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. 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. P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation occurs: Get medical advice/ attention.
Storage	P403 + P233 + P235: Store in a well-ventilated place. Keep container tightly closed. Keep cool. P405: Store locked up.
Disposal	P501: Dispose of as hazardous waste in compliance with local and national regulations.
Other hazards	No data available

3. Composition/Information on ingredients

Mixture

n-Butanol

Contents: ≤ 4.00 %W/W

CAS-No. 71-36-3

Index-No. 603-004-00-6

EC-No. 200-751-6

Sodium Acrylate

Contents: ≥ 5.00 - ≤ 10.00 %W/W

CAS-No. 7446-81-3

Index-No.

EC-No. 231-209-7

Sodium Hydroxide; Caustic Soda

Contents: ≤ 4.00 %W/W

CAS-No. 1310-73-2

Index-No. 011-002-00-6

EC-No. 215-185-5

Hazard statements H314

n-Butyl Acrylate

Contents: ≤ 1.00 %W/W

CAS-No. 141-32-2

Index-No. 607-062-00-3

EC-No. 205-480-7

Hazard statements H226 H315 H317 H319 H332 H335 H412

Water

Contents: ≤ 1.00 %W/W

CAS-No. 7732-18-5

Index-No.

EC-No. 231-791-2

4. First Aid Measures

Description of necessary first-aid measures

Inhalation	Ensure Important Considerations are also applied: See general information above. Remove to fresh air. Get medical attention immediately If breathing has stopped, apply artificial respiration. Do not use mouth to mouth resuscitation. Administer 100% medical Oxygen by facial mask at a feed rate of 12L/min to 15L/min. Keep patient warm and at rest and maintain airway monitor blood pressure and respiration while waiting for medical assistance.
Skin contact	Ensure Important Considerations are also applied: See general information above. Immediately shower exposed area with large quantities of water for 5 to 15 minutes or until soapiness is gone Completely remove all contaminated clothing and shoes while in a shower. If burns occur, cover the affected area with sterile, dry, loose-fitting dressing. Get medical attention immediately if irritation persists.
Eye contact	Ensure above Important Considerations are also applied. See general information: Speed is essential. Immediately wash the eye(s) with clean water including under the eyelids, for at least 5 to 15 minutes. Take care not to rinse the contaminated water into the unaffected eye. Obtain immediate medical attention. (apply cool packs on eyes while transporting victim to a medical facility).
Ingestion	Ensure Important Considerations are also applied: See general information above. If swallowed, DO NOT induce vomiting. If the patient is conscious, give very large amounts of water to drink and repeat if vomiting occurs. If vomiting occurs, keep head lower than the hips to help prevent aspiration. Never give anything by mouth to an unconscious person. Maintain airway and respiration and observe/treat as for inhalation. Get medical attention immediately

Most important symptoms/effects, acute and delayed

Refer to SECTION 11

Treatment Symptomatic treatment and supportive therapy as indicated. Rewash eyes with physiological solution and assess extent of corneal damage. Determine presence or absence of burns in the mouth-oesophageal burns may exist- provide standard treatment for ingestion of corrosive.

5. Fire Fighting Measures

Suitable extinguishing Media Water spray. Carbon dioxide (CO₂). Dry chemical. Foam.

Special hazards arising from the substance or mixture Use water spray to cool fire exposed storage containers, until well after fire has been extinguished. Stay away from ends of fire exposed storage tanks. Caustic fumes may accumulate in confined spaces.

Special protective equipment for firefighters An approved positive pressure self-contained breathing apparatus must be worn. Although it will provide little or no thermal protection, chemical protective clothing must be worn when handling this substance.

6. Accidental Release Measures

Personal precautions Ensure suitable personal protection during removal of spillage. Cordon off the area and deny entry to non-protected persons and the public. Evacuate to an area away from and upwind of the incident, if possible, to higher ground. Always work upwind of any spill. Do not touch or walk through spilled material. Stop leaks if you can do so without risk. Sodium hydroxide mist is heavier than air, it will accumulate in excavations and confine spaces and natural depressions.

Environmental precautions Spillage, uncontrolled discharges into watercourses must be reported to the product supplier, DOW and other regulatory bodies -Product supplier, Local Authority, Department of Water Affairs and other appropriate regulatory bodies.

Methods for cleaning up Absorb with sand or other non-combustible absorbent material and place into compatible containers for disposal. For a small spillage, allow product to cool and solidify.

Reference to other sections Refer to Section 8 and 13

7. Handling and storage

Safe handling advice Avoid contact with skin and eyes. Use in well-ventilated areas and keep container closed. When using do not eat, drink or smoke. Always wash hands before after use, before eating, drinking and or smoking. Always wear chemical protective clothing when working with this substance. Avoid generation of mist and do not breathe mist and avoid any direct contact with the product. Eye wash fountains and quick drench showers must be provided within the immediate work area for emergency site.

Requirements for storage areas and containers Store on a corrosion resistant surface (e.g. epoxy coated concrete). Storage facilities needs to be laid out, designed and maintained in accordance with legal requirements, standard practice - S310-1 Store in tightly closed, designated mild steel containers, in a dry area, away from acids. Store separate from common metals (e.g. aluminium or light alloys) and oxidizing agents.

Advice on common storage No data available

8. Exposure Controls/Personal Protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Components	Type	Control parameter	Update	Basis
BUTAN-1-OL	STEL	150	1995	South Africa
N-BUTYL ALCOHOL	STEL	mg/m ³ 50	1995	RELs South
BUTAN-1-OL		ppm		Africa RELs
SODIUM HYDROXIDE	STEL	2 mg/m ³	1995	South Africa RELs
BUTYL ACRYLATE	TWA	55	1995	South Africa
	TWA	mg/m ³	1995	RELs South

Exposure controls

Engineering measures

Mechanical ventilation (dilution and or local exhaust) is recommended for all indoor situations.

Eye wash fountains and quick drench showers must be provided within the immediate work area for emergency use.

Personal protective equipment

Respiratory protection

Ventilation and other forms of engineering controls are the preferred means for controlling exposures. Self-contained breathing apparatus (EN 133) Negative pressure canister type respirator masks should be used for escape or short term rescue purposes. Wear full-face self-contained breathing apparatus with positive pressure or air line mask when sodium monoxide fumes being evolved.

Hand protection

Impervious gloves

Eye protection	Goggles and a full-face shield must be worn when working with this substance. Wear full-face respiratory protection if there is a possibility of caustic soda fumes being emitted.
Skin and body protection	It is recommended that a hooded chemical resistant(plastic) body suit be worn during operations where there is high risk of exposure STANSA(Standards SA, previously SABS) approved acid repellent type overall is recommended. Overall must be buttoned to the neck and sleeves worn over the gloves. Wear acid resistant impervious gloves when handling the product. -they must be of long type which reach to the elbow and are worn underneath the sleeve. Closed acid resistant shoes must be worn when working with small amounts of this substance. Full length chemically resistant boots must be worn when handling this substance. STANSA(Standards SA, previously SABS) approved hard hats should be used to protect against falling objects and possible product spays
Hygiene measures	Wash hands immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Information on basic physical and chemical properties

Form	Viscous liquid
State of matter	Liquid
Colour	Clear to slightly turbid, colourless, viscous liquid.
Odour	Odourless
Odour Threshold	No data available
pH	10 - 12
Melting point/freezing point	6 - 12 °C; 1,013 hPa
Boiling point/boiling range	140 °C; 1,013 hPa
Flash point	Non-flammable
Evaporation rate	No data available

Flammability (solid, gas)	No data available
Vapour density	No data available
Density	1.1 g/cm ³
Water solubility	Completely soluble

10. Stability and Reactivity

Reactivity	No data available
Chemical stability	No data available
Possibility of hazardous Reactions	Violent polymerisation can occur when combined with acetaldehyde, acrolein and acrylonitrile. NaOH solutions react corrosively with aluminium, zinc, tin and in contact with alloys of these metals can release Hydrogen gas. When adding water to concentrated sodium hydroxide solutions, localised overheating and possible splashing and toxic fumes can occur. Can react with sugar residues forming carbon monoxide.
Conditions to avoid	NaOH solutions are incompatible with acids, flammable liquids, chlorinated hydrocarbons, aluminium, zinc, tin, nitrous compounds. Sodium Hydroxide solutions render glass container brittle over a period of time and can also slowly dissolve glass.
Materials to avoid	No data available
Hazardous decomposition Products	Nitrogen oxides (NO _x).Carbon oxides.

11. Toxicological Information:

Acute oral toxicity	n-Butanol: LD50 Rat: 200 - 2,000 mg/kg; OECD Test Guideline 401; GLP: no (literature value)
Acute oral toxicity	Sodium Hydroxide; Caustic Soda: LD50 Rabbit: 500 mg/kg; (literature value)

Acute dermal toxicity	n-Butanol: LD50 Rat: > 2,000 mg/kg; OECD Test Guideline 402; GLP: no; (literature value)
Acute dermal toxicity	Sodium Hydroxide; Caustic Soda:
Skin irritation	n-Butanol: Rabbit: Irritating; OECD Test Guideline 404 GLP: no; (literature value)
Skin irritation	Sodium Hydroxide; Caustic Soda: Rabbit: Severe skin irritation;
Eye irritation	n-Butanol: Rabbit: Risk of serious damage to eyes. OECD Test Guideline 405 GLP: no; (literature value)
Eye irritation	Sodium Hydroxide; Caustic Soda: Rat: Causes serious eye damage.

12. Ecological Information

Toxicity to fish	n-Butanol: flow-through test; Pimephales promelas; 96 h; LC50; > 100 mg/l; OECD Test Guideline 203; GLP: no; (literature value)
Toxicity to fish	Sodium Hydroxide; Caustic Soda: flow-through test; Oncorhynchus mykiss; 96 h; LC50; 189 mg/l; (literature value)
Toxicity to daphnia and other aquatic invertebrates	n-Butanol: flow-through test; Daphnia magna; 7 d; EC50; > 100 mg/l; GLP: no; (literature value)
Toxicity to daphnia and other aquatic invertebrates	Sodium Hydroxide; Caustic Soda: flow-through test; Daphnia magna; LC50; 240 mg/l



Biodegradability

n-Butanol:
Aerobic; activated sludge of a predominantly domestic sewage;
> 70 %; 9 d; Readily biodegradable; OECD Guideline 301 E;

GLP: no; literature value

13. Disposal Considerations

Product Disposal should be in accordance with local, regional and national legislations.

14. Transport Information

ADR

UN number: 1760
Class: 8
Packaging group: III; C9;
Proper shipping name: CORROSIVE LIQUID, N.O.S.

(Sodium Hydroxide)

RID

UN number: 1760
Class: 8
Packaging group: III; C9
Proper shipping name: CORROSIVE LIQUID, N.O.S.

(Sodium Hydroxide, cresols)

ADNR

UN number: 1760
Class: 8
Packaging group: III; C9
Proper shipping name: CORROSIVE LIQUID, N.O.S.



	(Sodium Hydroxide)
IMDG	
UN number:	1760
Class:	8
EmS:	F-A, S-B
Packaging group:	III
Proper shipping name:	CORROSIVE LIQUID, N.O.S. (Sodium Hydroxidexylenols)
Marine pollutant	Not a Marine Pollutant
ICAO/IATA	
UN number:	1760
Class:	8
Packaging group:	III
Proper shipping name:	CORROSIVE LIQUID, N.O.S. (Sodium Hydroxide)

15. Regulatory Information:

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

Registration, Evaluation and Authorisation of Chemicals (REACH)

All chemical constituents are listed in: Registration, Evaluation and Authorisation of Chemicals (REACH) (See chapter 3)



USA TSCA Inventory	All chemical constituents are listed in: USA TSCA Inventory (See chapter 3)
Canadian Domestic Substances List (DSL)	All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See chapter 3)
Australian Inv. of Chem. Substances (AICS)	All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See chapter 3)
New Zealand Inventory of Chemicals (NZIoC)	All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See chapter 3)
Jap. Inv. of Exist. & New Chemicals (ENCS)	All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCS) (See chapter 3)
Japan. Industrial Safety & Health Law (ISHL)	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See chapter 3)
Korea. Existing Chemicals Inventory (KECI)	All chemical constituents are listed in: Korea. Existing Chemicals Inventory (KECI) (See chapter 3)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See chapter 3)
China Inv. Existing Chemical Substances (IECSC)	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See chapter 3)

16. Other Information:

All reasonable efforts were exercised to compile this SDS in accordance with Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS provides information regarding the health, safety and environmental hazards, at the date of issue, to facilitate the safe receipt, use and handling of the product in the workplace. Since Arc Innovations and its subsidiaries cannot anticipate or control all conditions under which the product may be handled, used and received in the workplace, it remains the obligation of each user, receiver or handler to, prior to usage, review this SDS in the context within which the product will be received, handled or used in the workplace. The user, handler or receiver must ensure that the necessary mitigating measures are in place as regards health and safety. This does not substitute the need or requirement for any relevant risk assessments to be conducted. It further remains the responsibility of the receiver, handler or user to communicate such information to all relevant parties that may be involved in the receipt, use or handling of the product.

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