

Revision No.	Rev. 06
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(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SAFETY DATA SHEET (REGULATION (EC) n° 1907/2006 - REACH)
Version: N°3 (12/06/2015) Dust-A-Side

Name: DAS LC

SECTION 1: PRODUCT IDENTIFICATION

1.1 Product identifier

Product name: DAS LC
UNSPCS for Bitumen: 30121504
UNSPCS for Emulsions: 12161804

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

Hydrocarbon binder used for dust suppression.
Use descriptor system (REACH):

1.3 Details of the supplier of the safety data sheet

Registered company name: Dust-A-Side
Address: Menlyn Piazza
2nd Floor
c/o Glen Manor & Lois Avenue
PRETORIA
South Africa
0063
Telephone: +27 (12) 648 8900 Fax: +27 (12) 665 3456
info@dustaside.com www.dustaside.com

1.4 Emergency telephone number:

HSSE Representative	Mr. John McDonald	082 417 1541
Production Manager	Ms. Annelize Cronje	082 570 0958
Imperial Representative	Mr. Ricardo Basson	083 251 6051
Chief Technical Officer	Mr. Phillipus Masipa	082 768 9354
Rapid Spill	24h Response	0800 172 743

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK SOUTH AFRICA CRITERIA

In compliance with EC regulation No. 1272/2008 and its amendments.

May produce an allergic reaction (EUH208).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

May produce an allergic reaction.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard except for possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2 Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

2.3 Other hazards

The mixture does not contain any substances classified as 'Substances of Very High Concern' (SVHC) by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexure XIII of the REACH regulations EC 1907/2006.

Specific hazard: - Splashing, irritant dermal action

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

INGREDIENT	CAS NUMBER	EC NUMBER	CONTENT
Bitumen	8052-42-4	232-490-9	≤ 50%
Additive(s)	-	-	<5%
Non-hazardous ingredients (water)	Not Available	Not Available	Balance
Total			100%

Information on ingredients:

[1] Substance for which maximum workplace exposure limits are available.

Other data:

Chemical nature

Preparation:

Anionic aqueous emulsion of bituminous binder

The continuous phase is made of anionic or non-ionic resins. The phase separation obtained during use or occurring unintentionally is called breaking.

SECTION 4: FIRST AID MEASURES

As a rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1 Description of first aid measures

In the event of an allergic reaction, seek medical attention.

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In the event of splashes or contact with eyes:

Wash immediately with copious amounts of water, keeping eyelids apart for at least 15 minutes and consult a specialist.

In the event of splashes or contact with skin:

In the event of skin contact, wash off product with water. In the event of an allergic reaction, seek medical attention.

In the event of ingestion:

Seek medical attention, showing the label.
Dilute ingested product with water or milk. Do not induce vomiting to avoid any heartburn.
Transport to a specialized hospital immediately for emergency care.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: FIREFIGHTING MEASURES

Bituminous emulsions are non-flammable products.

5.1 Extinguishing media**Suitable methods of extinction**

In the event of a fire, use:
Cool containers with water spray.

5.2 Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke.

In the event of a fire, the following may be formed:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)

5.3 Advice for firefighters

Extinguishing Media: Water, Foam or Carbon Dioxide.
Protective Clothing: Standard fire-fighting protective clothing is required.
Hazardous Decomposition Products: Sulphur Dioxides, Carbon Monoxide

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non-first aid worker

No data available

For first aid workers

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2 Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.
Prevent any material from entering drains or waterways.

6.3 Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

Recovery: contain and collect the spilled product, sand the surfaces concerned if necessary.

Elimination: recover all wastes and dispose in compliance with current regulations.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1 Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using. Engineering / preventive measures

- Worker's exposure:
- If the product is sprayed with a hose, it is recommended to wear protective mask and clothes.
- Wear the protective equipment referenced in section 8 before handling the product.

Fire prevention:

Prevent access by unauthorized personnel.

- Never use solvent to help the process in case of blockage.
- Never weld or cut if tanks or pipes are still containing gases.

Recommended equipment and procedures:

For personal protection, see section 8.

Observe precautions stated on label and industrial safety regulations.

Precautions:

- Avoid breathing vapours
- Do not eat, drink and smoke when the product is moved or used.

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During product transfer:

- Always transfer the product by drawing up. Never reverse in a flexible tubing to avoid any bursting.
- Never decant with a flexible tubing through a manhole or unsuitable mouth.
- Do not use free-fall or spray methods when filling containers to prevent foaming.
- Do not fill the emulsion into any containers holding a product whose temperature exceeds 100oC.

Advice:

- Use only containers, pipes and joints suitable for handling bitumen emulsion and hydrocarbons.

Prohibited equipment and procedures:

Smoking, eating, or drinking in areas where the product is used is not advised.

7.2 Conditions for safe storage, including any incompatibilities

Product storage tanks must comply with applicable Dust-A-Side standards. If stored for 5 and more days without disturbance / use, circulate the content by means of a pump preferably centrifugal pump.

Storage:

Tanks and facilities must comply with applicable regulations. Avoid the use of any pumping devices as they are likely to destabilise the emulsion. Avoid storing at temperatures below 5°C or above 90°C. If the storage time exceeds 15 days, moderately mix the emulsion.

Packaging:

Always keep in packaging made of an identical material to the original.

Recommended types of packaging:

Suitable packaging materials:

Recommended: Steel, plastic

- For lab, use plastic or glass containers

Unsuitable packaging materials:

- Avoid copper or aluminium alloys.

7.3 Specific end use(s)

Dust suppression on soil

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits:

France (INRS - ED984:2008):						
CAS	VME-ppm:	VME-mg/m3:	VLE-ppm:	VLE-mg/m3:	Notes:	TMP No:
8050-09-7	-	0.1	-	-	-	65.66

Biological limits:

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

Predicted no effect concentration (PNEC):

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8.2 Exposure controls

Suitable technical inspections

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):



Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area.

Never eat, drink, or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Body protection

Suitable type of protective clothing: Suitable type of protective boots:

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been affected must be washed.

Respiratory protection

Not mandatory

Thermal risks

Exposure controls linked to environmental protection

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SECTION 9: CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid at ambient temperature
Colour:	Brownish black
Odour:	Mild Bitumen characteristic odour
pH:	11.5 -12.5 (Strongly basic)
Boiling point / boiling range:	100°C
Freezing point:	0°C
Flash point interval:	Not relevant.
Vapour pressure (50°C):	Not relevant.
Density:	1g/cm ³
Water solubility:	Miscible in water
Melting point / melting range:	Above 4°C
Self-ignition temperature:	Does not self-ignite
Decomposition point / decomposition range:	Not relevant.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal. Prevent any material from entering drains or waterways.

10.2 Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3 Possibility of hazardous reactions

None.

10.4 Conditions to avoid

Avoid: Frost

Emulsion stability is limited. If emulsion has been stored for more than a few days, it should be circulated before use.

10.5 Incompatible materials

Keep away from:

Cationic Emulsions

10.6 Hazardous decomposition products

The thermal decomposition may release / form:

- Carbon monoxide (CO)
- Carbon dioxide (CO₂)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Environmental data: Testing was performed to determine the toxicity of DAS LC to the neat product.

Summary of the Results of the neat product handling.

No known significant effects or critical hazards. See toxicological information (Section 11).

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10.1.1 Summary of the results

Table 1: Likely Routes of Exposure for DAS LC

Chemical Name	LD50 (oral)	LD50 (dermal)
Asphalt (Bitumen)	> 5000 mg/kg (rat)	> 2000 mg/kg (rabbit)
Bitumen softener	~ 12000 mg/kg (rat)	
Emulsifier	> 500 mg/kg (rat)	

Human risk associated with this product is low and product is not classified as a skin irritant.

Chronic Effects: No chronic effects
 Carcinogenicity: Not listed as carcinogenic
 Acute Toxicity: Acute mild toxic.
 Acute oral LD50: Single dose oral toxicity is low.
 No hazards anticipated from swallowing small amounts incidental to normal handling operations
 Acute dermal LD50: The LD50 for skin absorption in rats is >5000mg/kg.
 Acute inhalation LC50: No adverse effects are anticipated from inhalation.
 Skin & Eye Contact: Irritating to sensitive to skin. Signs / symptoms may include localized redness, swelling, and itching.
 Acute skin irritation: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely.

11.1.2 Mixture

Acute toxicity: Acute mild toxicity
 Skin corrosion / skin irritation: Irritating to skin. Signs / symptoms may include localized redness, swelling, and itching.
 Serious damage to eyes / eye irritation: Irritating to eyes. Signs / symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
 Respiratory or skin sensitization: Does not cause respiratory or skin sensitivity
 Contains at least one sensitizing substance. May cause an allergic reaction.
 Germ cell mutagenicity: Does not promote cell mutation under any condition
 Carcinogenicity: Non carcinogenic as its used as a cold mix
 Reproductive toxicant:
 Specific target organ systemic toxicity - single exposure: None
 Specific target organ systemic toxicity - repeated exposure: None

Aspiration hazard:

Symptoms related to the physical, chemical, and toxicological characteristics
 Delayed and immediate effects as well as chronic effects from short and long-term exposure: No chronic or adverse effects

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Substances

The product will not have a long-term effect on the ecology

12.1.2 Mixtures

Refer to section 11 above for summary of aquatic toxicity data available for the mixture.

12.2 Persistence and degradability

The emulsion is a product used for dust suppression and the binder, after breaking, has a long-life span.

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12.3 Bio accumulative potential

Bioaccumulation of bitumen is very unlikely because of insolubility and high molecular weight.

12.4 Mobility in soil

The product has no soil mobility.

Water: as the emulsion is miscible and mobile in water, the binder could be conveyed over long distances.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No adverse effects.

SECTION 13: DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and / or its container must be determined in accordance with Directive 2008/98/EC.

13.1 Waste treatment methods

Do not pour into drains or waterways.

Waste

Waste management is carried out without endangering human health, without harming the environment and, without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company. Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Contaminated packaging

Empty container completely. Keep label(s) on container. Give to a certified disposal contractor.

Local arrangements

Codes of wastes (Decision 2001/573/EC, Directive 2006/12/EEC, Directive 94/31/EEC on hazardous waste):

SECTION 14: TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	None Allocated	None Allocated	None Allocated
14.2 Proper Shipping Name	None Allocated	None Allocated	None Allocated
14.3 Transport Hazard class	None Allocated	None Allocated	None Allocated
14.4 Packing Group	None Allocated	None Allocated	None Allocated

14.5 Environmental hazards: Refer to Section 11**SECTION 15: REGULATORY INFORMATION****15.1 Safety, health, and environmental regulations / legislation specific for the substance or mixture**

Classification and labelling information included in section 2:

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The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 618/2012
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.

SECTION 16: OTHER INFORMATION

The information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is always the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Abbreviations:

ADR:	European agreement concerning the international carriage of dangerous goods by Road.
IMDG:	International Maritime Dangerous Goods.
IATA:	International Air Transport Association.
ICAO:	International Civil Aviation Organisation
RID:	Regulations concerning the international carriage of Dangerous goods by rail.
VPvB:	Very persistent very Bio accumulative
PBT:	Persistent, Bio accumulative and Toxic substances
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
UNSPCS:	United Nations Standard Products and Services Code