



Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

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

Product identifier

Trade name DDS(TM) Emulsion

Synonyms SDS™ Emulsion; UDS™ Emulsion; AN Emulsion;
Ammonium Nitrate Emulsion

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

Use Emulsion component of explosives. Ammonium Nitrate
Emulsion intermediate used in preparing blasting explosives.

Manufacturer or supplier's details

Company Sasol Chemicals, a division of Sasol South Africa (Pty) Ltd

Address Sasol Place, 50 Katherine Street
Sandton
2090

Telephone South Africa
+27103445000

E-mail address sasolchem.info.sa@sasol.com

Emergency telephone number +44 (0)1235 239 670 (Europe, Israel, Africa, Americas)
+44(0)1235 239 671 (Middle East, Arabic African countries)
+65 3158 1074 (Asia Pacific)
+86 10 5100 3039 (China)
+27 (0)17 610 4444 (South Africa)
+61 (2) 8014 4558 (Australia)

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

SECTION 2. Hazards identification

Classification of the substance or mixture

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

Classification

Oxidizing liquids	Category 3
Skin corrosion/irritation	Category 2
Eye damage/irritation	Category 2

Label elements

Pictogram



Signal word

Warning

Hazard statements

H272: May intensify fire; oxidizer.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.

Precautionary statements

Prevention

P220: Keep/Store away from clothing/ combustible materials.
 P221: Take any precaution to avoid mixing with combustibles.
 P264: Wash the contact area thoroughly after handling.
 P201: Obtain special instructions before use.
 P280: Wear protective gloves/protective clothing/eye protection.

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

	P210: Keep away from open flames/hot surfaces. - No smoking.
Response	P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362: Take off contaminated clothing and wash before reuse. P308 + P313: IF exposed or concerned: Get medical advice/ attention. P370 + P380: In case of fire: Evacuate area.
Storage	P405: Store locked up.
Disposal	P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.
Additional information	Store according to the mine Health and Safety act.
Other hazards	No data available

SECTION 3. Composition/information on ingredients

Mixture

Ammonium Nitrate

Contents: <= 80.00 %W/W

CAS-No. 6484-52-2

Index-No.

EC-No. 229-347-8

Hazard statements H272 H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4. First aid measures

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

Description of necessary first-aid measures

Inhalation	DDS Emulsion does not produce sufficient vapors to cause breathing distress.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and water.
Eye contact	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice.
Ingestion	If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water.

Most important symptoms/effects, acute and delayed

Refer to SECTION 11

SECTION 5. Firefighting measures

Suitable extinguishing media	Extinguishing media: small fires which do not involve substance directly use water spray. Extinguishing media: large fires - Do not fight fire; evacuate personnel to safe areas
Unsuitable extinguishing media	Dry chemical Carbon dioxide (CO ₂) (ineffective)

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

Special hazards arising from the substance or mixture	Under conditions of continuous exposure to heat, may burn. Under extreme conditions (e.g. confinement) could lead to detonation. Nitrogen oxides (NOx) and carbon oxides are produced during combustion. Oxidizing substance will support combustion of other materials. Emission of white and brown fumes indicate thermal decomposition. Immediate evacuation to safe area is necessary.
Special protective equipment for firefighters	When controlling fires before involvement of explosives, wear self-contained breathing apparatus and protective suit. When fire reaches material, evacuate and let it burn to completion.

SECTION 6. Accidental release measures

Personal precautions	Use personal protective equipment. Handle in accordance with good industrial hygiene and safety practice.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Try to prevent the material from entering drains or water courses.
Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Disposal and clean up may only be done by authorised personnel.
Reference to other sections	Refer to section 8 and 13

SECTION 7. Handling and storage

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

Safe handling advice	Wear personal protective equipment. Avoid contact with skin and eyes. Keep away from flames and sparks.
Advice on protection against fire and explosion	No data available
Requirements for storage areas and containers	Do not store near combustible materials. Store separately from gassing agents used for explosive sensitization. Keep away from strong alkalis. Keep away from acids. Keep away from oxidizing agents. Keep away from extreme heat.
Advice on common storage	This product is a controlled substance, only to be used within the limitations and permission of the explosive Act. This product is a controlled substance, only to be used within the limitations and permission of the Mine Health and Safety Act. This product is a controlled substance, only to be used within the limitations and permission of the OHSA of SA within South Africa. Detorioration results in thickening and crystallisation. Store in dedicated containers and separate holding areas. Keep away from hot work. No smoking.

SECTION 8. Exposure controls/personal protection

Components with workplace control parameters

NATIONAL OCCUPATIONAL EXPOSURE LIMITS

Contains no substances with occupational exposure limit values.

Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

Post blast fume mitigation controls for the use of explosives must comply with Mine Health and Safety Act.

Personal protective equipment

Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection	Impervious gloves
Eye protection	Safety glasses
Skin and body protection	Full protective overall
Hygiene measures	Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 9. Physical and chemical properties

Information on basic physical and chemical properties

Form	Emulsion
State of matter	Liquid; at 20 ° C; 1,013 hPa
Colour	Yellow to brown
Odour	Characteristic oily odor.
Odour Threshold	No data available
Melting point/range	Not applicable

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

Boiling point/boiling range	Not applicable
Flash point	> 100 ° C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Relative vapour density	No data available
Density	1.30 - 1.37 g/cm ³ ; 25 ° C
Water solubility	Insoluble, Immiscible
Viscosity, dynamic	min. 40,000 mPa.s; 25 ° C; Brookfield method

SECTION 10. Stability and reactivity

Reactivity	Stable under normal conditions.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	May explode under extreme conditions of confinement and heat.
Conditions to avoid	Heat, flames and sparks. Keep away from combustible material.
Materials to avoid	Combustible material Reducing agents. Powdered metal salts Incompatible with oxidizing agents. Acids
Hazardous decomposition products	Nitrogen oxides (NO _x) Other hazardous decomposition products may be formed.

SECTION 11. Toxicological information

Acute inhalation toxicity Ammonium Nitrate:

Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

	LC50 Rat: 4 h; > 88 mg/l; (literature value)
Acute dermal toxicity	Ammonium Nitrate: LD50 Rat: > 2,000 mg/kg;
Skin irritation	Ammonium Nitrate: Rabbit: Slightly irritating; (literature value)
Eye irritation	Ammonium Nitrate: Rabbit: irritating (literature value)

SECTION 12. Ecological information

Toxicity to fish	Ammonium Nitrate: semi-static test; Cyprinus carpio; 48 h; LC50; > 100 mg/l; (literature value)
Toxicity to daphnia and other aquatic invertebrates	Ammonium Nitrate: Daphnia magna; 48 h; > 100 mg/l(literature value)
Mobility in soil	No data available
Results of PBT and vPvB assessment	This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

SECTION 13. Disposal considerations

Product	Refer to standard code of practice from supplier. Disposal should be in accordance with local, regional and national
----------------	--



Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

legislations.

SECTION 14. Transport information

ADR

UN number: 3375
Class: 5.1
Packaging group: II; O1;
Proper shipping name: AMMONIUM NITRATE EMULSION

RID

UN number: 3375
Class: 5.1
Packaging group: II; O1
Proper shipping name: AMMONIUM NITRATE EMULSION

ADNR

UN number: 3375
Class: 5.1
Packaging group: II; O1
Proper shipping name: AMMONIUM NITRATE EMULSION



Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

IMDG

UN number: 3375

Class: 5.1

EmS: F-H, S-Q; IMDG Page: 2

Packaging group: II

Proper shipping name: AMMONIUM NITRATE EMULSION

Marine pollutant Not a Marine Pollutant

ICAO/IATA

UN number : 3375

Class: 5.1

Packaging group: II

Proper shipping name: AMMONIUM NITRATE EMULSION

SECTION 15. Regulatory information

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

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)



Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

Canada SNAc Reporting Requirements List	Components Not listed
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)

SECTION 16. Other information

Full text of H-Statements

H272 May intensify fire; oxidizer.

H319 Causes serious eye irritation.

All reasonable efforts were exercised to compile this SDS in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The SDS only provides information regarding the health, safety and environmental hazards at the date of issue, to facilitate the safe receipt, use and handling of this product in the workplace and does not replace any product information or product specifications. Since Sasol and its

Print Date 11.09.2018

100000012503

12/13



Safety Data Sheet

DDS(TM) Emulsion

Version 1.05

Revision Date 11.09.2018

subsidiaries cannot anticipate or control all conditions under which this 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 this 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 with respect to 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 this product.

Although all reasonable efforts were exercised in the compilation of this SDS, Sasol does not expressly warrant the accuracy of, or assume any liability for incomplete information contained herein or any advice given. When this product is sold, risk passes to the purchaser in accordance with the specific terms and conditions of sale.