

MATERIAL SAFETY DATA SHEET**PRODUCT NAME:** APSA-80™ All Purpose Spray Adjuvant Concentrate**DISTRIBUTED BY:**

Access Business Group International LLC
7575 Fulton Street East
Ada, Michigan 49355

MSDS/PRODUCT INFORMATION:

Business to Business Marketing Group
7575 Fulton Street East
Ada, Michigan 49355

INFORMATION #: 1-800-992-6929, Ext. 5**For Poisoning Emergencies call 1-616-787-6307 (This is a 24-hour number)****HAZARDOUS INGREDIENTS**

(per OSHA Hazard Communication Standard)

% in Product	CAS Number	COMMON NAME Chemical Name
<90	127087-87-0 or 26027-38-3 or 9016-45-9	NONIONIC SURFACTANT Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy- Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-
<25	71-36-3	N-BUTYL ALCOHOL 1-Butanol
<10	112-80-1 or 61790-12-3	FATTY ACID 9-Octadecenoic acid (9Z)- Fatty acids, tall-oil

This product contains n-butyl alcohol and may contain up to 3% glycol ethers which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

PHYSICAL AND CHEMICAL CHARACTERISTICS**SPECIFIC GRAVITY** (H₂O=1): 1.010-1.030**pH:** 6.5-8.0 (as is)**APPEARANCE AND ODOR:** This product is a clear, light yellow, slightly viscous liquid with a pungent irritating odor.**PHYSICAL HAZARD DATA****HAZARDS:** This product is combustible.**FIRE HAZARDS:****FLASH POINT:** 125 degrees F (52 degrees C) Tag Closed Cap**FIRE FIGHTING TECHNIQUES:** Standard: Wear full body protection. Wear self-contained breathing apparatus to protect against products of combustion. Use water spray, foam, dry chemical, CO₂. Cool containers with water. No explosion hazards identified.**REACTIVITY:****Stability:** Stable**Hazardous Polymerization:** Will not occur.

Conditions/material to Avoid: Avoid excessive heat, flame, contact with acids, strong oxidizers.

HEALTH HAZARD DATA

EXPOSURE LIMIT: An exposure limit for this product has not been established. Exposure limits for product ingredients are listed below.

PRIMARY ROUTES OF EXPOSURE/ENTRY: This product can affect the body if it contacts the skin or eyes, is absorbed through the skin, is inhaled or ingested.

SIGNS/SYMPTOMS/EFFECTS OF EXPOSURE:

SKIN CONTACT: This product is not a primary skin irritant. Prolonged or repeated skin contact with this product may cause dry skin. (see below)

EYE CONTACT: This product is a primary eye irritant.

INGESTION: Ingestion of this product may cause irritation of the mouth and throat, upset stomach, nausea, vomiting, and diarrhea.

INHALATION: Inhalation may cause irritation of the nose, throat, and lungs. (See below)

AGGRAVATED MEDICAL CONDITIONS: Pre-existing skin, eye, and respiratory disorders.

NOTES: Inhalation effects of this product other than respiratory irritation, and skin absorption effects of this product have not been determined. Inhalation and skin absorption effects of individual ingredients are noted below. A prediction as to whether these effects will be exhibited by the product as a whole is dependent on an evaluation of the product's use and extent and duration of exposure.

Inhalation overexposure to n-butyl alcohol vapors and mists may cause headache, nausea, dizziness, drowsiness. Experimental animals exposed to n-butyl alcohol vapors experienced blood, kidney and liver effects. Similar effects in humans exposed to concentrations below the OSHA (PEL (Permissible Exposure Limit) have not been noted. n-Butyl alcohol is skin absorbed. Dermal overexposure may result in the effects previously mentioned. The ACGIH ceiling TLV (Threshold Limit Value) is 50 ppm with a notation indicating skin absorption. The OSHA PEL is 100 ppm.

9-Octadecenoic acid (9Z)- caused chromosome aberration in yeast and in hamster fibroblast cells (cell culture tests).

EMERGENCY AND FIRST AID PROCEDURES

SKIN CONTACT: Remove contaminated clothing and thoroughly rinse skin with water. Follow immediately with a thorough washing with soap and water. Then continue rinsing with water for 15 minutes. GET MEDICAL ADVICE by calling the emergency phone number on page one of this MSDS, or a local/regional Poison Control Center, or a hospital emergency room. Launder contaminated clothing before reuse.

EYE CONTACT: Remove contact lenses. Rinse with a gentle stream of lukewarm water for 15 minutes, holding eyelids open. IF IRRITATION DEVELOPS, GET MEDICAL ADVICE by calling the emergency phone number on page one of this MSDS, or a local/regional Poison Control Center, or a hospital emergency room.

INGESTION: If victim is a child, give 4-8 ounces of water. For adults, give 8-12 ounces of water. Do not induce vomiting when this product is swallowed. If vomiting occurs spontaneously, keep victim in an upright position. GET MEDICAL ADVICE by calling the emergency phone number on page one of this MSDS, or a local/regional Poison Control Center, or a hospital emergency room.

INHALATION: Remove to fresh air. If irritation or breathing difficulty develops, GET MEDICAL ADVICE by calling the emergency phone number on page one of this MSDS, or a local/regional Poison Control Center, or a hospital emergency room.

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF SPILLED OR RELEASED: Eliminate sources of ignition. Wear appropriate personal protection equipment (respirator, gloves, goggles and/or face shield, boots, protective clothing). Contain/dike spill to prevent environmental release.

WASTE DISPOSAL: This product is a U.S. EPA RCRA hazardous waste. Dispose of in accordance with Federal, State and Local regulations.

HANDLING PRECAUTIONS

PROTECTIVE MEASURES: Wear appropriate protective measures to prevent eye and prolonged skin contact (glasses, goggles, rubber gloves, protective clothing). Minimize inhalation exposure (engineering controls, NIOSH-approved respiratory protection appropriate for the hazard presented).

WORK/HYGIENE PRACTICES: For good personal hygiene, insure prompt removal from skin and clothing.

DISCLAIMER

The information contained herein is believed to be accurate and represents the best information currently available to us, much of which comes from the manufacturer or supplier of components of this product. Therefore, Access Business Group LLC makes no warranty, express or implied, regarding the accuracy of the data. Health and safety precautions in this data sheet may not be adequate for all individuals and product uses. It is the user's obligation to make certain that this MSDS is the most current MSDS for the product; to evaluate the information contained in this sheet in connection with the uses to which the product is to be put in the workplace and to use the product safely in accordance with applicable laws and regulations. If there are any questions concerning the information contained in this sheet or its applicability to a particular use, the user is instructed to telephone 1-800-992-6929, Option 5. Access Business Group LLC assumes no responsibility for injury from the use of the product described in this sheet in a way different from that provided in the label directions.

HAZARDOUS CHEMICAL MATERIAL SAFETY DATA SHEET

(Conforms to the Requirements of 29 CFR 1910.1200)

PRODUCT TRADE NAME: A M M O N I U M N I T R A T E

1. NAME AND ADDRESS OF MANUFACTURER:

LADSHAW EXPLOSIVES, INC.

P. O. Box 1754

Hobbs, New Mexico 88240

Physically Located at Hobbs Industrial Air Park

2. PREPARED BY: H. F. Bogatko DATE: November 5, 1985 REVISION: New

3. MEDICAL EMERGENCY TELEPHONE NUMBERS:

EAST OF THE MISSISSIPPI: 717 - 386 - 4121

WEST OF THE MISSISSIPPI: 417 - 624 - 0212

4. THE MATERIAL DESCRIBED IN THIS DATA SHEET IS A:

SINGLE HAZARDOUS CHEMICAL

5. CHEMICAL AND COMMON NAMES OF HAZARDOUS CHEMICAL:

Ammonium Nitrate *99.6%*
Nitric Acid, Ammonium Salt
Ammonium Nitrate Plus Water Solution

CAS Number [6484-52-2] RTECS Number - BR905000

6. PHYSICAL AND CHEMICAL CHARACTERISTICS:

<u>Anhydrous</u>	<u>83% Solution</u>
Solubility in Water - 100%	Shipping Temperature - 120 + °C
Specific Gravity - 1.725	
Melting Point - 155°C	<u>Bulk Density - Prills</u>
Molecular Weight - 80.06	46 to 52 pounds per cubic foot

7. PHYSICAL HAZARDS:

DOT HAZARD : OXIDIZER, can explode if burned in confinement.

8. HEALTH HAZARDS:

- o No data in RTECS which indicates a health hazard.
- o However, contact with eyes can cause pain and irritation, if prolonged.

9. PRIMARY ROUTE(S) OF ENTRY: No Data

10. PERMISSIBLE EXPOSURE LIMITS: No Data

11. LISTINGS:

MATERIAL	NTP ANNUAL REPORT ON CARCINOGENS	IARC MONOGRAPHS	OSHA CARCINOGEN
Ammonium Nitrate	No	No	No

MATERIAL SAFETY DATA SHEET

PRODUCT: MF-55

EMERGENCY FIRST AID PROCEDURES:

- 1. Eyes: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
- 2. Skin Contact: Remove contaminated clothing and immediately wash skin with soap and water. If irritation persists, get medical attention.
- 3. If swallowed: Essentially non-toxic (See Section IX).

SECTION V - SPECIAL PROTECTION INFORMATION

- 1. VENTILATION TYPE REQUIRED: Local Exhaust [37] RESPIRATORY PROTECTION: None Required
- 2. PROTECTION GLOVES: Rubber unless exposed to product mist.
- 3. EYE PROTECTION: Safety glasses. [40] OTHER PROTECTIVE EQUIPMENT: None

SECTION VI - HANDLING OF SPILLS OR LEAKS

- 1. PROCEDURES FOR CLEAN-UP: Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable absorbing material and place in a sealed metal container for disposal.
- 2. WASTE DISPOSAL: Mix with a flammable solvent and incinerate in accordance to local, state, and federal regulations.

SECTION VII - SPECIAL PRECAUTIONS

- 1. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling. Product is slippery when wet. Exercise caution in the storage and handling of all chemical substances. Use only in a well ventilated area.

SECTION VIII - TRANSPORTATION DATA

- 1. UNREGULATED BY D.O.T.: Yes [45] REGULATED BY D.O.T.: No
- 2. TRANSPORTATION EMERGENCY INFORMATION:
- 3. U.S.D.O.T. PROPER SHIPPING NAME: Oil Well Treating Compound
- 4. U.S.D.O.T. HAZARD CLASS: NA
- 5. I.D. NUMBER: NA [50] RQ: NA [51] LABEL(S) REQUIRED: None
- 6. FREIGHT CLASSIFICATION: Item #138640 NMF 100 G Class 50
- 7. SPECIAL TRANSPORTATION NOTES: None

SECTION IX - COMMENTS

- 1. The acute oral LD50 (rats) is > 10 ml/kg. The acute dermal LD50 (rabbits) is > 10 ml/kg (Test results on a similar product).

Revision Date: 11/89

We believe the statements, technical information and recommendations contained herein are true, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, resulting from their use.

AQUAGEL / FW 666

I PRODUCT IDENTIFICATION		
SUPPLIER NL BAROID	TELEPHONE NO 713/987-5900	
ADDRESS P.O. BOX 1675 HOUSTON, TEXAS 77251		
TRADE NAME AQUAGEL ³		
GENERIC DESCRIPTION WYOMING BENTONITE, SODIUM MONTMORILLONITE		
II HAZARDOUS INGREDIENTS		
MATERIAL OR COMPONENT		HAZARD DATA
SILICA		LOW CONCENTRATIONS OF
		CRYSTALLINE SILICA (SiO ₂)
		IN THE FORM OF QUARTZ,
		CRISTOBALITE, AND TRIDYMIT
		MAY BE PRESENT
		(SEE SECTION V)
III PHYSICAL DATA		
BOILING POINT (°F) NA	MELTING POINT ND	FREEZING POINT ND
SPECIFIC GRAVITY (H ₂ O = 1) 2.5	VAPOR PRESSURE (mm Hg) NA	
VAPOR DENSITY (AIR = 1) NA	SOLUBILITY IN H ₂ O, % BY WT NA	
% VOLATILES BY VOL. NA	EVAPORATION RATE (BUTYL ACETATE = 1) NA	
APPEARANCE AND ODOR LIGHT TAN TO GRAY POWDER, NO ODOR	Density @ 20°C (Uncompacted): 49.4 lbs/cubic foot	
pH NA		

NA = Not Applicable ND = Not Determined

All information, recommendations and suggestions herein concerning our product are based upon tests and data believed to be reliable; however, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by NL Petroleum Services, Inc. as to the effects of such use. The user

is to be obtained of the safety and toxicity of the product nor does NL Petroleum Services, Inc. assume any liability arising out of use by others of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

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HEALTH HAZARD

0

FLAMMABILITY

0

REACTIVITY

Occupational Safety and Health Administration (OSHA)

VI REACTIVITY DATA**CONDITIONS CONTRIBUTING TO INSTABILITY**

THIS PRODUCT IS STABLE UNDER NORMAL DRILLING CONDITIONS.

INCOMPATIBILITY

NONE

HAZARDOUS DECOMPOSITION PRODUCTS

NONE

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

NONE

VII SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

NORMAL HOUSEKEEPING, CAUSES SLIPPERY SURFACES WHEN WET.

NEUTRALIZING CHEMICALS

NA

WASTE DISPOSAL METHOD

MUD WASTES SHOULD BE DISPOSED OF IN DESIGNATED DISPOSAL AREAS. (i.e. GENERAL LANDFILLS OR DESIGNATED OCEAN DISPOSAL SITES).

VIII INDUSTRIAL HYGIENE CONTROL MEASURES**VENTILATION REQUIREMENTS**

MECHANICAL, GENERAL ROOM VENTILATION
USE LOCAL VENTILATION TO MAINTAIN TLV (SEE SECTION V)

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT**RESPIRATORY**

USE A NIOSH APPROVED MECHANICAL FILTER RESPIRATOR FOR NON TOXIC DUSTS.

EYE

NONE REQUIRED

GLOVES

NONE REQUIRED

OTHER CLOTHING AND EQUIPMENT

APRON, EYEWASH STATION

IX SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS

AVOID PROLONGED INHALATION.

RECOMMENDED LABEL:

FRONT PANEL: CAUTION

SEE BACK PANEL FOR CAUTION BEFORE USE.

BACK PANEL: CAUTION

THIS PRODUCT CONTAINS FREE SILICA. PROLONGED INHALATION OF THE POWDER MAY RESULT IN LUNG DISEASE. AVOID CREATING DUSTY CONDITIONS AND USE A NIOSH APPROVED DUST RESPIRATOR.

OTHER HANDLING AND STORAGE REQUIREMENTS

AQUAGEL IS NON HAZARDOUS. NO HAZARDS ARE INVOLVED WITH NORMAL HANDLING.

DEPARTMENT OF TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: NOT REGULATED

HAZARD CLASS: NOT HAZARDOUS

HAZARDOUS SUBSTANCE: NONE

PREPARED BY **NL Barold**
ENVIRONMENTAL SERVICES

DATE
JULY, 1987