SAFETY DATA SHEET

According to Safe Work Australia

Printing date 08.08.2014 Revision: 01.08.2014

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: ACID-FLO
Other Name: Nitric acid, sulphamic acid mixture.

Recommended Use of the Chemical and Restriction on Use: As an acid detergent.

Details of Manufacturer or Importer:
DASCO Pty Ltd
24 - 26 Helen Street
Heidelberg Heights VIC 3081

Phone Number: (03) 9459 7004

Emergency telephone number: 13 11 26 (Poisons Information Centre)

2 . HAZARDS IDENTIFICATION

Hazardous Nature:


corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Label Elements

Signal Word Danger

Hazard Statements
H314 Causes severe skin burns and eye damage.

Precautionary Statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P264	Wash hands thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national regulations.

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

	Hazardous Components:	
7697-37-2	Nitric acid Ox. Liq. 3, H272; Skin Corr. 1A, H314	10-30%
5329-14-6	Sulfamic acid Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Chronic 3, H412	<10%
	Surfactant	<10%

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4 . FIRST AID MEASURES

Inhalation:
If inhaled, remove to fresh air, rest and keep warm. Seek medical attention if breathing problems develop.

Skin Contact:
In case of skin contact, immediately remove contaminated clothing and wash skin and hair with running water. Seek medical attention if symptoms occur.

Eye Contact:
In case of eye contact, hold eyelids apart and flush eye with running water for at least 15 minutes or until advised to stop by Poisons Information Centre or a doctor. Seek immediate medical attention.

Ingestion:
If swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. Seek immediate medical attention.

Information for Doctor
Product is an acid mixture containing up to 13% nitric acid. Causes burns. Risk of serious damage to eyes. Contact Poisons Information Centre.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water fog or fine water spray.

Specific Hazards Arising from the Chemical:
Contact with aluminium or zinc may generate hydrogen, a flammable gas. Contact with combustible materials may cause fire. Reaction with organic materials, including wood or paper may produce products that are readily ignited or even explosive. Combustion products include water vapour, oxides of nitrogen, oxides of sulphur and oxides of phosphorous.

Special Protective Equipment and Precautions for Fire Fighters:
Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:
Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:
In the event of a major spill, contain and prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:
Stop leak if safe to do so. Slippery when spilled.
For small spills: neutralise spills by covering liberally with soda ash or lime. If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb spill with inert absorbent material and transfer to a suitable container and arrange removal by a disposals company.
For large spills: absorb spill with sand, earth or other absorbent material. Transfer both solids and liquids to a suitable container for disposal. Treat residues as for small spillages.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:

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Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.
Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:
Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Only store in original container. Protect from physical damage. Keep away from alkalis (including carbonates and bicarbonates), oxidising agents, organic materials, combustible materials, active metals (such as aluminium or zinc), copper and alloys, combustible materials, wood and paper. Large quantities should be stored in a bunded dangerous goods store. Keep out of reach of children.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:	
7697-37-2 Nitric acid	
NES	STEL: 10 mg/m³, 4 ppm TWA: 5.2 mg/m³, 2 ppm

Engineering Contols:
Ensure adequate ventilation of the workplace. Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below the limits.

Personal Protective Equipment (PPE):

Respiratory Protection:
Use a Safe Work Australia approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:
Rubber or plastic gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.
When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Impervious overalls, plastic apron, sleeves and boots should be worn when handling industrial quantities. See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:
Eye and face protectors for protection against splashing materials or liquids, such as face shield and safety glasses. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Slightly frothing liquid
Colour:	Clear
Odour:	Slight smell of surfactant and nitric acid.
Odour Threshold:	No information available
pH-Value:	Very acidic
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	> 100 °C
Flash Point:	None
Flammability:	Contact with combustible material may cause fire.

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Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure:	No information available
Density:	No information available
Relative Density:	1.1 g/mL
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Miscible in all proportions
Partition Coefficient (n-octanol/water):	No information available
% Volatiles by Volume:	About 92 %
VOC:	None

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions:
Very acidic liquid. Will react vigorously or violently with alkalis. Contact with carbonates or bicarbonates will generate carbon dioxide, a simple asphyxiant. Contact with aluminium or zinc may generate hydrogen, a flammable gas. Contact with copper or its alloys may generate brown fumes of nitrogen dioxide, a toxic and corrosive gas. Contact with combustible materials may cause fire. Reaction with organic materials, including wood or paper products, may produce products that are readily ignited or even explosive.

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Physical damage to container.

Incompatible Materials:
Alkalis (including carbonates and bicarbonates), oxidising agents, organic materials (including wood and paper), combustible materials, active metals such as aluminium or zinc, copper and its alloys.

Hazardous Decomposition Products: Oxides of nitrogen, oxides of sulphur and oxides of phosphorous.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD_{50}/LC_{50} Values Relevant for Classification:		
5329-14-6 Sulfamic acid		
Oral	LD_{50}	3160 mg/kg (rat)
7697-37-2 Nitric acid		
	LC_{50}/4 h	67 ppm (rat)
	LDLo	110 mg/kg (human) (man)
Oral	LDLo	430 mg/kg (human)

Acute Health Effects
Inhalation:
May cause irritation of the nose and throat, a burning sensation in the nose, throat and lungs, coughing, difficulty breathing and choking. May cause chemical pneumonitis and pulmonary oedema (fluid build up in the lungs) which may be fatal. Onset of symptoms may be delayed.
Skin:
Corrosive, may cause yellowish skin discolouration, pain, burns and possibly deep ulceration. Mild exposures may cause skin rash, cold and clammy skin with pale colour and cyanosis (blueish colour of the lips and skin).

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Eye:
Corrosive, may cause immediate pain, redness, severe deep burns. Vapours may also cause irritation and permanent damage to eyes, chemical conjunctivitis and corneal damage.
Ingestion:
Corrosive, may cause burns to the lips, mouth, throat and gastrointestinal tract. Other symptoms include increased salivation, intense thirst, difficulty swallowing, chills, pain and shock. Large doses may be fatal.

Skin Corrosion / Irritation: Causes severe skin burns.

Serious Eye Damage / Irritation: Causes serious eye damage.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met.

Carcinogenicity: This product does NOT contain any IARC listed chemicals.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Single Exposure:
Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:
Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.

Chronic Health Effects:
Long term, low level exposure to vapours of nitric acid may cause chronic bronchitis, erosion of the teeth and possible lung damage.

Existing Conditions Aggravated by Exposure: Pre-existing lung and skin disorders.

12 . ECOLOGICAL INFORMATION

Ecotoxicity: Toxic to aquatic organisms.

Aquatic toxicity: No information available

Persistence and Degradability: No information available

Bioaccumulative Potential: No information available

Mobility in Soil: No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:
Neutralise with soda ash or lime before disposal. Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:
Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number
ADG UN1760

Proper Shipping Name
ADG CORROSIVE LIQUID, N.O.S. (contains 13% nitric acid, <5% sulphamic acid)

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Dangerous Goods Class
ADG Class: 8 Corrosive substances.

Packing Group:
ADG II

Hazchem Code: 2X

Special Provisions: 274

Limited Quantities: 1L

Packagings & IBCs - Packing Instruction: P001, IBC02

Packagings & IBCs - Special Packing Provisions: Not applicable

Portable Tanks & Bulk Contatiners - Instructions: T11

Portable Tanks & Bulk Containers - Special Provisions: TP2, TP27

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:	
7697-37-2	Nitric acid
5329-14-6	Sulfamic acid
7732-18-5	Water

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
Poisons Schedule: 6

16 . OTHER INFORMATION

Creation Date: 01.08.2014

Last Revision of MSDS: 01.09.2009

Prepared by: MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations and acronyms:
ADG: Australian Dangerous Goods
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds
LC_{50}: Lethal concentration, 50 percent
LD_{50}: Lethal dose, 50 percent
IARC: International Agency for Research on Cancer
STEL: Short Term Exposure Limit
TWA: Time Weighted Average
NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Disclaimer
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