1. Identification of the substance / preparation and the Company

1.1 IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

Product name	**DDA**
Chemical name and synonym	AQUEOUS SOLUTION OF MINERAL ACIDS
1.2 USE OF THE SUBSTANCE / PREPARATION	STRONG ACID DETERGENT

1.3 IDENTIFICATION OF THE COMPANY

Name	INDUSTRIA CHIMICA GENERAL S.R.L.
Full address	VIA REPUBBLICA DI SAN MARINO 8
City and Country	41100 MODENA (MO), ITALY
	TEL. +39-059.450978 +39-059.450991 FAX +39-059.450615
	E-MAIL: mail@generalchemical.it

1.4 EMERGENCY PHONE NUMBERS	CHEMTREC, USA (+1)800-424-9300
	(+1)703-527-3887 INTERNATIONAL PHONE NUMBER
	ANTI-POISON CENTER, MILAN, ITALY +39-02-6610.1029

2. Composition / Information on ingredients

Substances contained which are harmful to health under directive 67/548/CEE (E.U.) and subsequent amendments or for which there are recognized exposure limits:

Name	Concentration C	Classification	
ISOTRIDECANOL ETOXILATE	1 <= C < 1,5	Xn	R22
Cas No 30044-01-7		Xi	R41
HYDROCHLORIC ACID	4,5 <= C < 5	T	R23
Cas No 7647-01-0		C	R35
CE No 231-595-7		XI	R37
Index No 017-002-00-2			
FORMIC ACID	10 <= C < 11,5	C	R35
Cas No 64-18-6			
CE No 200-579-1			
Index No 607-001-00-0			

The complete text of -R- phrases is specified in section 16.

3. Hazards Identification

3.1 SUBSTANCE/PREPARATION CLASSIFICATION

This preparation is dangerous under 67/548/EEC and 1999/45/EC directives and subsequent amendments. Therefore, this preparation requires a safety data sheet according to the 91/155/EC regulation and subsequent amendments. Further information on health and/or environmental hazards can be found in sections 11 and 12 of this sheet.
DANGER SYMBOLS: C PHRASES R: 2 0-35-37

3.2 DANGER IDENTIFICATION
HARMFUL BY INHALATION. CAUSES SEVERE BURNS. IRRITATING TO RESPIRATORY SYSTEM.

4. First aid measures

EYES: Irrigate copiously with clean, fresh water for at least 15 minutes. Seek medical advice.
SKIN: Immediately wash with plenty of water. Remove all contaminated clothing. Obtain immediate medical attention. Wash contaminated clothing separately before using them again.
INHALATION: Remove to open air. If breathing is irregular or stopped, administer artificial respiration. Obtain immediate medical attention.
INGESTION: Obtain immediate medical attention. Induce vomiting only if indicated by the doctor. Give nothing by mouth to an unconscious person.

5. Fire-fighting measures

Cool the containers in order to avoid product decomposition and generation of substances which might injure the health and be dangerous for safety reasons. Wear the fire equipment all the time.

6. Accidental release measures

Limit the spreading of the spillage with inert absorbent material (sand, earth etc). Neutralize and remove as far as possible the treated mass; wash the remainder with plenty of water.

7. Handling and storage

Store in a well ventilated place, keeping the containers closed when not used. Do not smoke while handling. Keep far away from sources of heat, naked flames and sparks and other sources of ignition.

8. Exposure control / personal protection.

HYDROGEN CHLORIDE			
- TLV CEILING	2	mg/m³	ACGIH
- OEL	8	mg/m³	EU (8h)
FORMIC ACID			
- TLV TWA	9,4	mg/m³	ACGIH
- TLV STEL	19	mg/m³	ACGIH

Against corrosive properties of the product and according to the type of working, suitable protection equipment should be worn. Such as: an helmet to protect the face, the head and the neck, waterproof gloves and overall, resistant to the product.
Do not eat, drink or smoke while handling it; wash carefully the hands with soap and water before meals and after work shift; a shower is recommended.

9. Physical and chemical properties

COLOUR		Colourless.			
ODOUR		Light typical			
PHYSICAL STATE		Liquid			
SOLUBILITY		N.A.			
VISCOSITY		N.A.			
VAPOUR DENSITY		N.A.			
EVAPORATION SPEED		N.A.			
COMBURENT PROPERTIES		N.A.			
PARTITION COEFFICIENT: N-OCTANOL/WATER		N.A.			
PH		N.A.			
BOILING POINT		N.A.			
FLASH POINT		not appl.			
EXPLOSIVE PROPERTIES		N.A.			
VAPOUR PRESSURE		N.A.			
SPECIFIC GRAVITY	kg/l.	1,05			
VOC (DIRECTIVE 1999/13/EC) :		12,20%	-	128,10	g/litre of preparation
VOC (VOLATILE CARBON) :		03,79%	-	39,82	g/litre of preparation

10. Stability and reactivity

The product can decompose and/or violently react.
Dipropyleneglycolmonomethyl ether may react with oxidizing agents. Heated to decomposition, it emits acrid and irritant fumes and vapours. Flammability point is 83°C (181.4°F).
Formic acid decomposes to carbon oxide when heated; it is a strong acid which reacts violently with strong bases and oxidizing agents and is corrosive. It dissolves different types of plastic materials. Over 70°C (158°F) it can form explosive mixtures with air.

11. Toxicological information

Acute effects: inhalation of this product is harmful. This product may irritate mucous membranes, the upper respiratory tract, eyes and skin. Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness.
In the most serious cases, inhalation of this product may cause larynx and bronchial tube oedema and irritation, chemical pneumonia and pulmonary oedema. Ingestion of even small amounts of product may cause health problems (stomach pain, nausea, sickness, diarrhoea).
This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. Possible vapours are caustic for the respiratory system and may cause pulmonary oedema, whose symptoms sometimes arise only after some hours. Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness. If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, oedema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.
DIPROPYLENE GLYCOL MONOMETHYL ETHER: experimental toxicity data exclude it as a danger to health considering that the oral LD50 in the rat is 5660 mg/kg, skin/LD50 in the rat: 9500 mg/kg; slight irritation of the eyes and skin in rabbits.
The ACGIH limit of exposure on an 8 hour work day is 606 mg/cu.m, excluding the possible effects by the cutaneous route.
HYDROGEN CHLORIDE: oral LD50 (mg/kg) 700 (RAT) ; dermal LD50 (mg/kg) 1449 (MOUSE) ; inhalation LC50 (rat) 3124 ppm/1h

12. Ecological information

Use this product according to good working practices. Avoid litter. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

13. Disposal consideration

Dispose in an authorized plant according to the Law and the local regulations in force. Consider the possibility of burning the product in a suitable incinerator.
Acid or basic products must always be neutralized before undergoing any treatment, including biological treatment whenever feasible. If the waste is solid, it can be disposed of in a landfill.

14. Transport information

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. These goods must be packed in their original packages or in packages made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

Road and rail transport:

ADR:	8
UN:	1760
Packing Group:	II
Label:	8
Nr. Kemler:	80
Proper Shipping Name:	Corrosive liquid, n.o.s.

Carriage by sea (shipping):

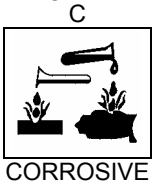
IMO class:	8
UN:	1760
Packing Group:	II
Label:	8
EMS:	F-A; S-B
Proper Shipping Name:	Corrosive liquid, n.o.s.

Transport by air:

IATA:	8
UN:	1760
Packing Group:	II
Label:	8
Cargo: Packaging instructions: 813	Maximum quantity: 30 L.
Cargo: Packaging instructions: 809	Maximum quantity: 1 L.
Special Instructions:	A3

15. Regulatory information

C



CORROSIVE

R 20	HARMFUL BY INHALATION.
R 35	CAUSES SEVERE BURNS.
R 37	IRRITATING TO RESPIRATORY SYSTEM.
S 1/ 2	KEEP LOCKED UP AND OUT OF THE REACH OF CHILDREN.
S 26	IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
S 36/37/39	WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.
S 45	IN CASE OF ACCIDENT OR MALAISE, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

Contains: HYDROCHLORIC ACID, FORMIC ACID

Danger labelling under directives 67/548/EEC and 1999/45/EC and following amendments and adjustments.
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC regulation is respected.

16. Other information

Text of -R- phrases quoted in section 2 of the sheet.

R22	HARMFUL IF SWALLOWED.
R23	TOXIC BY INHALATION.
R35	CAUSES SEVERE BURNS.
R37	IRRITATING TO RESPIRATORY SYSTEM.
R41	RISK OF SERIOUS DAMAGE TO EYES.

GENERAL BIBLIOGRAPHY

1. Directive 1999/45/EC and following amendments;
2. Directive 67/548/EEC and following amendments and adjustments (technical adjustment XXIX);
3. Directive 91/155/EEC and following amendments;
4. The Merck Index. - 10th Edition;
5. Handling Chemical Safety;
6. Niosh - Registry of Toxic Effects of Chemical Substances;
7. INRS - Fiche Toxicologique (toxicological sheet);
8. Patty - Industrial Hygiene and Toxicology;
9. N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition;

Note for user

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product .
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.