SECTION 1 - IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY				
Independent Photog PO Box 317 Thornleigh, NSW 212	raphic Supplies Pty Ltd 20	Phone 02 9875 2244 Fax 02 9875 5448 Mobile. 0407 221 835 Email: technical@iphoto.com.au		
Substance:	Water solution of ingredients.			
Trade Name:	LTN Developer Replenish	ner Part C		
Other Names:	This is Part C of a three part sys	tem.		
Product Code:	20N1-2103C			
Product Use:	Photographic reagent.			
Creation Date:	December, 2007			
Revision Date:	August, 2020 and is valid for 5	5 years from that date.		

SECTION 2 - HAZARDS IDENTIFICATION

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. C, Corrosive. Hazardous according to the criteria of ASCC.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

Risk Phrases: R22, R34, R43, R36/38. Harmful if swallowed. Causes burns. May cause sensitisation by skin contact. Irritating to eyes and skin.

Safety Phrases: S20, S28, S36, S46, S24/25. When using, do not eat or drink. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing. If swallowed, contact a doctor or Poisons Information Centre immediately and show this MSDS or label. Avoid contact with skin and eyes. **SUSDP Classification:** S6 **ADG Classification:** Class 8 (CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.)

UN Number: 3265

Emergency Overview

Physical Description & colour: Clear to slightly dark liquid. Odour: No odour.

Major Health Hazards: causes burns, irritating to eyes and skin, harmful if swallowed, possible skin sensitiser.

Potential Health Effects

Inhalation:

Short term exposure: Available data indicates that this product is not harmful. Liberates sulphur dioxide gas which can cause irritation to the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short term exposure: Classified as a potential sensitiser by skin contact. Exposure to a skin sensitiser, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe. In addition product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short term exposure: This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short term exposure: Significant oral exposure is considered to be unlikely. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhoea. However, this product is corrosive to the gastrointestinal tract. Capable of causing moderate to severe burns with

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ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure.

Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

ASCC: No significant ingredient is classified as carcinogenic by ASCC.

NTP: No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS					
Ingredients	CAS No	Conc,%	TWA (mg/m ³)	STEL (mg/m ³)	
2-((4-amino-3-methylphenyl)ethylamino)ethanol sulphate					
	25646-77-9	7-15	not set	not set	
Other non hazardous ingredients		<27	not set	not set	
Water	7732-18-5	to 100	not set	not set	
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This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The ASCC TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 - FIRST AID MEASURES

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.

SECTION 5 - FIRE FIGHTING MEASURES

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. This will only occur after heating to dryness.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires. Ensure that no spillage enters drains or water courses.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point:	Does not burn.
Upper Flammability Limit:	Does not burn.
Lower Flammability Limit:	Does not burn.
Autoignition temperature:	Not applicable - does not burn.
Flammability Class:	Does not burn.

MATERIAL SAFETY DATA SHEET

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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned below (section 8). Otherwise, not normally necessary.

Stop leak if safe to do so, and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Because of the corrosiveness of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute alkali. Baking soda, washing soda and limestone are suitable. This material may be suitable for approved landfill. Ensure legality of disposal by consulting

regulations prior to disposal. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

SECTION 7 - HANDLING AND STORAGE

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

ASCC Exposure limits TWA (mg/m³)

STEL (mg/m³)

Exposure limits have not been established by ASCC for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems. **Ventilation:** This product should only be used where there is ventilation that is adequate to keep exposure below the TWA levels. If necessary, use a fan.

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: If you believe you may have a sensitisation to this product or any of its declared ingredients, you should prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

Physical Description & colour: Clear to slightly dark liquid.

MATERIAL SAFETY DATA SHEET

Issued by: Independent Photographic Supplies Pty Ltd

Phone 02 9875 2244 (BH)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

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Odour: Boiling Point: Freezing/Melting Point: Volatiles: Vapour Pressure: Vapour Density: Specific Gravity: Water Solubility: pH: Volatility: Odour Threshold:	No odour. Approximately 100°C at 100kPa. Approximately 0°C. Water component. 2.37 kPa at 20°C (water vapour pressure). 0.6 1.1 Completely soluble in water. 2.6 No data.
•	2.0
Odour Threshold:	No data.
Evaporation Rate: Coeff Oil/water distribution:	No data. log Pow < 1
Autoignition temp:	Not applicable - does not burn.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Most strong acids react with inorganic and organic bases such as amines to form salts. They also react with many metals liberating hydrogen gas. These reactions are often rapid and sometimes liberate much heat. They can also decompose many organic materials such as esters, in a reaction called hydrolysis.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed.

Incompatibilities: strong bases, strong oxidising agents.

Fire Decomposition: Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. This will only occur after heating to dryness. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Water. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Polymerisation: This product will not undergo polymerisation reactions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Local Effects: Target Organs:

There is no data to hand indicating any particular target organs.

2-((4-amino-3-methylphenyl)ethylamino)ethanol Sulphate is Classed by ASCC as a potential sensitiser by skin contact.

LD₅₀ Oral, Rat 25-50mg/kg

 LD_{50} Dermal, Rat = >2000mg/kg

LC₅₀ Inhalation, Rat > 164mg/L/6hr Oral (4 weeks, female rat): NOEL; 1 mg/kg/day

Oral (4 weeks, female rat): LOEL; 10 mg/kg/day (target organ effects: kidney)

Oral (4 weeks, male rat): NOEL; 10 mg/kg/day

Oral (4 weeks, male rat): LOEL; > 10 mg/kg/day (target organ effects: kidney)

Oral (90 days, rat): NOEL; 1 mg/kg/day

Oral (90 days, rat): LOEL; 5 mg/kg/day (target organ effects: kidney)

SECTION 12 - ECOLOGICAL INFORMATION

This product is toxic to aquatic organisms. Not readily biodegradable. However, it is expected to degrade abiotically and not persist in the environment.

Fish: LC₅₀ Fish: <1mg/L **Daphnia:** EC₅₀ 1-10mg/L COD (approximate): 235g/L Algae: EC₅₀ 10-100mg/L

BOD (approximate): 25 g/L

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal: There are many pieces of legislation covering waste disposal and they differ in each state and territory, so each user must refer to laws operating in their area. In some areas, certain wastes must be tracked. The Hierarchy of Controls seems to be common - the user should investigate: Reduce, Reuse, and Recycle and only if all else fails should disposal be considered. Note that properties of a product may change in use, so that the following suggestions

MATERIAL SAFETY DATA SHEET

Issued by: Independent Photographic Supplies Pty Ltd

Phone 02 9875 2244 (BH)

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)

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may not always be appropriate. The following may help you in properly addressing this matter for this product. This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, consider landfill, but we recommend that it be neutralised in a controlled manner before disposal.

SECTION 14 - TRANSPORT INFORMATION

ADG Code: 3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. Hazchem Code: 2X Special Provisions: SP109, SP185, SP274 Dangerous Goods Class: Class 8, Corrosive Substances. Packaging Group: III Packaging Method: 3.8.8

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

SECTION 15 - REGULATORY INFORMATION

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: 2-((4-amino-3-methylphenyl)ethylamino)ethanol sulphate, is mentioned in the SUSDP.

SECTION 16 - OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

Acronyms:	
ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail
AICS	Australian Inventory of Chemical Substances
ASCC	Office of the Australian Safety and Compensation Council
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
R-Phrase	Risk Phrase
SUSDP	Standard for the Uniform Scheduling of Drugs & Poisons
UN Number	United Nations Number
	KNOWLEDGE OF THE HEALTH AND CAFETY HAZADD INFORMATION OF THE DRODUCT AND

THIS MSDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS MSDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE. IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE,

THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

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http://www.kilford.com.au/ Phone (02)9251 4532

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