

Material Safety Data Sheet

1. IDENTIFICATION OF MATERIAL AND SUPPLIER

PRODUCT NAME: SCALEX

Synonyms: Hydrochloric Acid Solution

Recommended Use: Acid Cleaner

Supplier: Minehan Agencies Pty Ltd

Address: 29 Camuglia Street GARBUTT Townsville Queensland Australia 4814

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Emergency telephone number: 0408 777 800 (24Hrs Australia)

2. HAZARDS IDENTIFICATION

This product is classified as:

Hazardous Substance according to criteria of the National Occupational Health and Safety Commission (NOHSC).

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

Approved Criteria Classification (Calculated).	CORROSIVE R35, RESPIRATORY IRRITANT R37 Safety Phrases S1/2, S36/37/39
SUSDP Classification	Poison S6 (Hydrochloric Acid)
ADG Classification	Class 8 (Hydrochloric Acid Solution)
Un Number	1789

EMERGENCY OVERVIEW

COLOUR	Pale Yellow
PHYSICAL DESCRIPTION	LIQUID
ODOUR	Strong Acrid
MAJOR HEALTH HAZARD	Severe burns, permeant eye damage Respiratory tract damage.

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POTENTIAL HEALTH EFFECTS

Inhalation: Short term exposure. Corrosion of mucous membranes, irritation, nausea, vomiting, difficulty breathing, headache, drowsiness, symptoms of drunkenness, lung congestion. **Long term Exposure.** Possible lung and respiratory tract damage including pulmonary oedema, may trigger pre-existing respiratory complaints.

Skin Contact: Short term exposure. Severe burns, redness and irritation. **Long term exposure.** Permanent scarring. Prolonged exposure to a diluted form may cause irritation, redness and dermatitis.

Eye Contact: Short term exposure. Severe irritation, serious eye damage. **Long-term exposure.** Permanent damage to eyes including blindness.

Ingestion: Short term exposure. Severe burns to mouth, oesophagus and stomach. Headaches, nausea, and severe abdominal pain may result. **Long-term exposure.** Permanent Gastrointestinal damage.

Carcinogen Status

NOHSC	Not Classified
NTP	Not Classified
IARC	Not Classified

3. COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL ENTITY	CAS No	PROPORTION W/W %
Hydrogen Chloride	7647-01-0	20-25%
Nonyl phenol ethoxylate	9016-45-9	1-5%
Water		to 100%

4. FIRST AID MEASURES

Poison Information Centres in each State capital city can provide additional assistance for Scheduled Poisons: Phone (Australia 13 1126).

Inhalation: Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Perform artificial respiration if needed. Allow patient to assume most comfortable position and keep warm. Seek medical attention.

Skin Contact: Remove contaminated clothing. Wash contaminated skin for at least 15-20mins with of water, or until no evidence of the chemical remains (this product will feel slippery or soapy on the skin.). If swelling, redness, blistering, or irritation occurs seek medical advice. Wash clothing before re-use.

Eye Contact: Immediately irrigate with copious quantities of water for at least 15 minutes. Eyelids to be held open. If present, remove contact lenses. Seek medical attention. **Note to Physician.** Can cause corneal burns.

Ingestion: Immediately rinse mouth with water. Do NOT induce vomiting. Seek urgent medical attention.

Notes to Physician: Treat symptomatically.

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5. FIRE FIGHTING MEASURES

Flash Point: Not a Flammable or Combustible liquid.

Fire and Explosion Hazard: Non-combustible material. Closed containers exposed to heat may explode.

Specific Hazards: Corrosive Liquid. May produce explosive, flammable gas when in contact with metals including mild steel, aluminium, zinc and other light metals. Releases ammonia gas in contact with ammonium salts or ammonia solutions. Release chlorine gas in contact with hypochlorite solids or solutions.

Fire Fighting: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dam for later disposal. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. **Suitable Extinguishing Media:** Not combustible, however, if material is involved in a major fire use water fog to keep drums cool. Use foam, CO₂ or dry chemical powder to extinguish surrounding fire.

Hazardous Decomposition in Products: On burning may emit fumes including chlorine, carbon monoxide, carbon dioxide, and partially burned hydrocarbons. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion.

Hazchem Code: 2R

6. ACCIDENTAL RELEASE MEASURES

Strongly acidic liquid. Stop leak if possible without personal risk. Wear protective equipment to prevent personal injury (see section 8). **Small spills (< 5L)** Cover with an absorbent material (soil, sand or other inert material). Collect and seal in properly labelled containers for disposal. Hose down area with large amounts of water. Caution, Slip Hazard. **Large spills (>5L)** Prevent run off into drains and waterways. Dam material. Cover with absorbent material. Collect and seal in properly labelled containers for disposal. Neutralise residual material with a mild alkaline solution (bicarbonate). Hose down area with large amounts of water. Keep unnecessary people away, isolate hazard area and deny entry. If contamination of sewers or waterways has occurred, advise local emergency services.

7. HANDLING AND STORAGE

Store in a well-ventilated area. Store in a cool, dry place and out of direct sunlight. Store away from foodstuffs and strong acids. Store in original containers. Do not store in aluminium containers. Keep containers closed when not in use – check regularly for leaks. This material is a Scheduled Poison and a Class 8 Corrosive liquid and must be stored, maintained and used in accordance with the relevant regulations. Handle using good industrial hygiene practices (see section 8 on personal protection).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: No value has been assigned for this specific material by NOHSC. However exposure limits for ingredients are shown below

Ingredient	TWA	STEL	Notices
Hydrogen Chloride	5 ppm	35ppm	

TWA – the Time-Weighted Average airborne concentrations over an eight hour working day, for a five day week over an entire working life.

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STEL (Short Term Exposure Limit) – the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight hour work day. According to current knowledge, these concentrations should neither impair the health of, nor cause undue discomfort to, nearly all workers.

Sk Notice – absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Sen Notice- Sensitiser. The substance can cause a specific immune response in some people. An affected individual may subsequently react to minute levels of that substance.

These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. Exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

Biological Limit Value: Odour threshold 0.7ppm. Exposure above 35ppm causes strong irritation of mucous membranes.

Engineering Controls: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards and prevent exposure to vapours, mists and fumes. Use in well ventilated area. Keep containers closed when not in use.

Personal Protection Equipment

Respirator Type (AS 1716): If inhalation risk exists, wear organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Eye Protection: Safety glasses with side shields or goggles should be worn as described in Australian Standard AS/NZS 1337 – Eye Protectors for Industrial Applications.

Glove Type: Impervious PVC or rubber gloves should be worn.

Clothing: Suitable protective clothing should be worn eg: cotton overalls buttoned at neck and wrist.

Work/Hygienic Practices: Avoid skin and eye contact. Always wash hands before smoking, eating, drinking or using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid		Water Solubility	Soluble
Colour	Pale yellow		Vapour Pressure	11-115 mmHg
Odour	Acrid		Vapour Density	1.26 (air =1)
Boiling Point	Approx 100 °C		Evaporation Rate	Slower than butyl acetate
Melting Point	unknown		% Volatiles	98%
Freezing Point	unknown		Flash Point	Not Flammable
Specific Gravity	1.14g/ml (water =1)		Flammability Limits	NA
Ph (neat)	1		Ignition Temperature	NA

10. STABILITY AND REACTIVITY

Reactivity: Stable at normal temperatures and pressure.

Conditions to Avoid: Avoid contact with incompatible materials.

Incompatibilities: Strong Oxidising Agents, Strong Alkalies, Mild steel, & Light Metals (Al, Sn, Pb, Zn)
Explosive reactions may occur with strong oxidising agents.
Violent heat producing reactions may occur with strong alkalies.

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An explosive, flammable gas (Hydrogen gas) is produced when in contact with metals.

Hazardous Decomposition: Thermal decomposition products include, chlorine, hydrogen, carbon dioxide, carbon monoxide, and Nitrous oxides.

Polymerisation: Will not polymerise.

11. TOXICOLOGICAL INFORMATION

Scalex

Local Effects: Corrosive & Toxic: Inhalation, skin, eyes, and ingestion.

Target Organs: Lungs & Respiratory tract. Contact corrosion

Classification of Hazardous Ingredients

Ingredients	R Phrases
Hydrogen Chloride	R35, 37, 41
Nonyl phenol ethoxylate	R20 , R36

Individual Ingredient Information

Hydrogen Chloride

Irritation Data: Humans, 1hour, 50-100ppm barely tolerable, 35ppm cause irritation of throat

Toxicity Data: LD50 rabbit, oral, 900mg/kg. LD50 rat, inhalation 3124ppm, 1hour.

Local Effects: Vapour causes strong irritation of respiratory tract

Acute Toxicity Level: Inhalation lowest lethal concentration (human) 1300ppm/30min and 3000ppm/5min.

Target Organs: Corrosion on contact. Respiratory tract.

Mutagenic Data: No data available

Reproduction Effects Data: No data available

Nonylphenol Ethoxylate

Irritation Data: Eye rabbit, 0.005ml, severe corneal injury; Skin rabbit, capillary injection, sensitisation.

Toxicity Data: LD50 oral rat males, 2.33 ml/kg . LD50 oral rat females, 2.83 ml/kg

Local Effects: Irritant, skin, eyes and Respiratory System

Acute Toxicity Level: Toxic by ingestion

Target Organs: Skin, eyes, Respiratory System, Liver & Kidneys

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Mutagenic Data: No information available

Reproduction Effects Data: Developmental effects including extra ribs and other skeletal variations were observed in the fetuses of rats treated with maternally toxic levels.

12. ECOLOGICAL INFORMATION

General Statement: Do not allow large quantities (>20L) of this product to enter the waterways. Strong acid effect will be detrimental to aquatic life.

Ecotoxicity: Hazardous to the environment due to the high acid content (pH effect). The effect of Hydrochloric Acid on an organism depends on the buffer capacity of the aquatic or terrestrial ecosystem. LC50 values of acute toxicity tests with aquatic organisms ranged between 30 and 200 mg/L.

Persistence and Degradability: No specific information available for this product

Mobility: Very mobile in soil and very soluble in water. No transport to air

Additional information.

The International Maritime Organisation has identified Nonylphenol ethoxylate as a **MARINE POLLUTANT**.

Nonyl phenol ethoxylate, CAS 9016-45-9, has been shown to have:

Moderate Toxicity in Amphibians, Annelida, & Fish

Slight toxicity in Crustaceans, Molluscs, & Zooplankton.

Toxicity to Fish: LC 50, Fathead Minnow, 96hrs: 4.0 – 5.6 mg/l

Toxicity to Aquatic Invertebrates: LC 50, Daphnia, 48hrs: 16.7 - 27.5 mg/l

Toxicity to Micro-organisms: IC 50, Bacterial Inhibition: > 5000mg/l

Degradability of Nonylphenol ethoxylate

Biodegradation (%) after 5 days: 18%

Biodegradation (%) after 10 days: 33%

Biodegradation (%) after 20 days: 42%

13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority for disposal, show this MSDS for their consideration. Empty containers not to be recycled or used for any other purpose. Dispose in accordance with local regulations.

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14. TRANSPORTATION INFORMATION

UN No	1789
Proper Shipping Name	Hydrochloric Acid Solution.
ADG Code	Class 8
Sub Risk	Class 6.1
Packing Group	II
Special Precautions	None
Hazchem Code	2R
EPG	8A1 & 6A6
Segregations	Yes

15. REGULATORY INFORMATION

SUSDP: Poison S6

AICS: All of the constituents of this material are listed on the ACIS.

16. OTHER INFORMATION

Issue Date: February 2010

Reason(s) For Issue: Updated format to comply with NOHSC: 2011(2003).

Labelling Details

First line of Label must read: POISON

Other statements to include

- R35** Cause severe burns
- R41** Risk of serious damage to eyes
- R20/21/22** Harmful by inhalation, in contact with skin, and if swallowed
- S1/2** Keep locked up and out of reach of children.
- S26** In case of contact with eye/s, do NOT rub eyes as this may scratch the cornea, rinse immediately with plenty of water and seek medical advice.
- S36/37/39** Wear Suitable protective clothing, gloves and eye/face protection
- S45** In case of accident or if you feel unwell, seek medical advice immediately (show the label wherever possible).

Abbreviations & Acronyms

- SUSPD:** Standard for the Uniform Scheduling of Drugs and Poisons
- ADG:** Australian Code for the Transport of Dangerous Goods by Road and rail
- N.O.S.** Not Otherwise Specified
- CAS No:** Chemical Abstracts Service Registry Number
- UN No:** United Nations Number
- R-Phrases:** Risk Phrases
- S-Phrases:** Safety Phrases
- HAZCHEM Code:** Hazardous Chemical emergency action code
- NOHSC:** National Occupational Health and Safety Commission
- IARC:** International Agency for Research into Cancer
- ACIS:** Australian Inventory of Chemical Substances
- NTP:** National Toxicology Program (USA)

Literary references:

Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(41999)]

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National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC: 2011(2003)]
Exposure Standards for Atmospheric Contaminants in the Occupational Environment
Guidance Note [NOHSC: 3008(1995)] National Exposure Standards [NOHSC: 10005(1999)]
List of Designated Hazardous Substances [NOHSC: 10005(1999)]
Standard for the Uniform Scheduling of Drugs and Poison No. 17
The Australian Code for the Transport of Dangerous Goods by Road and Rail EDITION 6

Disclaimer

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product and in particular how to safely handle and use the product in the workplace.

Since Minehan Agencies Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace i.e. a risk analysis.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact Minehan Agencies Pty Ltd.