SAFETY DATA SHEET

Section 1: SUBSTANCE IDENTIFICATION AND SUPPLIER

Product Name: **Geller Technical Electrosol**

Other Name: **NA**
N.O.S.

Recommended Use: Solvent Cleaner

Company Identification: Integra Industries Ltd
Address: **21 Glasgow St**
Dunedin
Ph 03 455 6805

Emergency Telephone Number: IN AN EMERGENCY, DIAL 111 – FIRE or POLICE or AMBULANCE

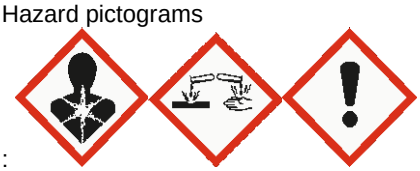
National Poisons Information Centre: 0800 POISON (0800 764 766) 24 HOURS

Section 2: HAZARD IDENTIFICATION

GHS Classification

Flammable liquids	:	Category 4
Acute toxicity (Oral)	:	Category 4
Skin corrosion/irritation	:	Category 2
Serious eye damage/eye irritation	:	Category 1
Carcinogenicity	:	Category 2
Specific target organ toxicity – single exposure	:	Category 3 (Central nervous system)
Aspiration hazard	:	Category 1

GHS label elements
Hazard pictograms



:
Signal word : Danger

Hazard statements :
H227 Combustible liquid.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.

Precautionary statements :

Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P281 Use personal protective equipment as required.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P310 Immediately call a POISON CENTER or doctor/ physician. P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification
The information required is contained in this Material Safety Data Sheet.

Section 3: COMPOSITION INFORMATION

INGREDIENT	CAS No.	CONTENT
Hydrocarbons, C10, aromatics, >1% naphthalene	Not Assigned	>= 30
2-Butoxyethanol	111-76-2	>= 10
Naphthalene	91-20-3	< 10
Nonylphenol polyglycol ether	9016-45-9	< 10
Dichloromethane; Methylene Chloride	75-09-2	< 10
Tetrachloroethylene	141-43-5	< 10

Section 4: FIRST AID MEASURES

General advice : Take off contaminated clothing and shoes immediately. First-aid crew: Ensure self-protection.
Move out of dangerous area.

Inhalation : Move to fresh air.
If symptoms persist, call a physician.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes.
Call a physician immediately.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Call a physician immediately.

Ingestion : Rinse mouth with water.
Immediately give large quantities of water to drink. Do NOT induce vomiting.
Call a physician immediately.

Most important symptoms and effects, both acute and delayed : No information available.

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.
Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.

Notes to physician : Treat symptomatically.
For specialist advice physicians should contact the Poisons Information Service.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2) ,Dry powder
Alcohol-resistant foam, Water spray

Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Heating or fire can release toxic gas.
Specific extinguishing methods	:	Use water spray to cool unopened containers
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Ensure adequate ventilation. Wear personal protective equipment. Evacuate personnel to safe areas. For further information see Section 8 of the safety data sheet. For disposal considerations see section 13.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Ensure adequate ventilation. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13)..

Section 7: HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Keep away from sources of ignition - No smoking. Normal measures for preventive fire protection. Take precautionary measures against static discharges.
Advice on safe handling	:	Provide sufficient air exchange and/or exhaust in work rooms. Have eye wash bottle or eye rinse ready at the work place. Avoid contact with skin and eyes. To avoid risks to man and the environment, comply with the instructions for use.
Hygiene measures	:	Take off contaminated clothing and shoes immediately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and immediately after handling the product. Avoid contact with skin and eyes. Do not breathe vapour. Do not breathe spray

Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in original container.
Store in a place accessible by authorized persons only. To maintain product quality, do not store in heat or direct sunlight.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hydrocarbons, C10, aromatics, >1% naphthalene	Not Assigned	TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
2-Butoxyethanol	111-76-2	TWA	20 ppm 96.9 mg/m3	AU OEL
	Further information: Skin absorption			
		STEL	50 ppm 242 mg/m3	AU OEL
	Further information: Skin absorption			
		TWA	20 ppm	ACGIH
Naphthalene	91-20-3	TWA	10 ppm 52 mg/m3	AU OEL
	Further information: Category 2 (Carc. 2) Suspected human carcinogen			
		STEL	15 ppm 79 mg/m3	AU OEL
	Further information: Category 2 (Carc. 2) Suspected human carcinogen			
		TWA	10 ppm	ACGIH
2-Aminoethanol; Ethanolamine	141-43-5	TWA	3 ppm 7.5 mg/m3	AU OEL
		STEL	6 ppm 15 mg/m3	AU OEL
		TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH

Biological occupational exposure limits

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Recommended Filter type: A-P2

Hand protection

Remarks : Neoprene gloves Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the
danger of cuts, abrasion, and the contact time.

Eye protection : Eye protection (EN 166)
Tightly fitting safety goggles

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance : thin fluid

Colour : colourless to amber
Odour : hydrocarbon-like, petroleum-like

Boiling point/boiling range : 171 °C

Flash point : 65 °C

Upper explosion limit : Upper flammability limit
12.7 %(V)

Lower explosion limit : lower flammability limit
1.1 %(V)

Vapour pressure : 1.0666 hPa (20 °C)

Density : 0.93 g/cm³

Solubility(ies)
Water solubility : emulsifiable

Section 10: STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : None known.

Conditions to avoid : Heat, flames and sparks.

Hazardous decomposition products : No decomposition if stored and applied as directed.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity
Product:

Acute inhalation toxicity :Acute toxicity estimate: > 5 mg/l Exposure time: 4 h

Test atmosphere : dust/mist Method: Calculation method

Acute dermal toxicity :Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Components:
Benzyl alcohol:
Acute inhalation toxicity :LC50 (Rat): > 4.178 mg/l Exposure time: 4 h
Test atmosphere: dust/mist

Nonylphenol polyglycol ether:
Acute oral toxicity :LD50 (Rat): > 2,000.0 mg/kg

α-(4-Nonylphenyl)-ω-hydroxy-poly(oxy-1,2-ethanediyl) branched:
Acute oral toxicity :LD50 (Rat): 16,000 mg/kg

Acute dermal toxicity :LD50 (Rabbit): 4,490 mg/kg

2-Aminoethanol; Ethanolamine:
Acute oral toxicity :LD50 (Rat): 1,515 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity :LC50 (Rat): > 1.3 mg/l
Exposure time: 6 h

Acute dermal toxicity :LD50 (Rat): > 1,000 mg/kg

Skin corrosion/irritation
Product:
Remarks: Causes severe burns.
Serious eye damage/eye irritation
Product:
Remarks: Causes serious eye damage.
Respiratory or skin sensitisation
Product:
Chronic toxicity
Germ cell mutagenicity

Product : No data available

Carcinogenicity

Product : No data available

Reproductive toxicity

Product : No data available

STOT - single exposure

Product : No data available

STOT - repeated exposure

Product : No data available

Product:

Repeated dose toxicity -
Assessment : If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach.

Aspiration toxicity

Product : No data available

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity
Components:
2-Butoxyethanol:

Toxicity to fish	:LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,490 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:EC50 (Daphnia (water flea)): 1,720 mg/l Exposure time: 24 h
Toxicity to algae	:EC0 (Scenedesmus quadricauda (Green algae)): 900 mg/l Exposure time: 168 h Test Type: Cell multiplication inhibition test
Toxicity to bacteria	:EC0 (Pseudomonas putida): 700 mg/l Exposure time: 16 h

Benzyl alcohol:

Toxicity to fish	:LC50 (Fish): 460 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:EC50 (Daphnia magna (Water flea)): 230 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 NOEC (Daphnia magna (Water flea)): 51 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to algae	:EC50 (Scenedesmus quadricauda (Green algae)): 79 mg/l Exposure time: 3 h EC0 (Scenedesmus quadricauda (Green algae)): 640 mg/l Exposure time: 96 h
Toxicity to bacteria	:EC50 (Photobacterium phosphoreum): 71.42 mg/l Exposure time: 30 min EC10 (Pseudomonas putida): 658 mg/l Exposure time: 16 h

Nonylphenol polyglycol ether:

Toxicity to fish	:	LC50 (Brachydanio rerio (Zebra danio)): > 1 - 10 mg/l Exposure time: 96 h

2-Aminoethanol; Ethanolamine:

Toxicity to fish	:	LC50 (Carassius auratus (goldfish)): 170 mg/l Exposure time: 96 h Test Type: static test Remarks: Information taken from reference works and the literature. LC50 (Cyprinus carpio (Carp)): 349 mg/l Exposure time: 96 h Test Type: semi-static test Method: Tested according to Directive 92/69/EEC. NOEC (Oryzias latipes (Orange-red killifish)): 1.2 mg/l Exposure time: 30 d
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 65 mg/l Exposure time: 48 h Test Type: static test NOEC (Daphnia magna (Water flea)): 0.85 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): 22 mg/l Exposure time: 72 h Method: Tested according to Directive 92/69/EEC. EC50 (Selenastrum capricornutum (fresh water algae)): 2.5 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to bacteria	:	EC50 (Pseudomonas putida): 110 mg/l Exposure time: 16 h

EC20 (activated sludge): > 1,000 mg/l
Exposure time: 0.5 h
Method: OECD Test Guideline 209

EC50 (activated sludge): > 1,000 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Persistence and degradability
Product:
Biodegradability : Remarks: No data available

Components:
2-Aminoethanol; Ethanolamine:

Biodegradability : Result: rapidly biodegradable

Bioaccumulative potential

Product:

Components:
2-Butoxyethanol:
Partition coefficient: n-octanol/water : log Pow: 0.81 (25 °C)

Method: OECD Test Guideline 107

Benzyl alcohol:
Partition coefficient: n-octanol/water : log Pow: 1.05

Mobility in soil
Product:

Distribution among environmental compartments : Remarks: No data available
Other adverse effects

No data available

Section 13: DISPOSAL INFORMATION

Disposal methods

Waste from residues : Dispose of contents/ container to an approved waste disposal plant.
Packaging : Dispose of as unused product.

Section 14: TRANSPORT INFORMATION

International Regulation

UNRTDG
Not regulated as a dangerous good
IATA-DGR
Not regulated as a dangerous good
IMDG-Code
Not regulated as a dangerous good
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.
National Regulations

ADG
Not regulated as a dangerous good

Section 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

The product is classified and labelled in accordance with EC directives or respective national laws. Regional or national implementations of GHS may not implement all hazard classes and categories.

Section 16: OTHER INFORMATION

New Zealand National Poison Information Centre (24 hours): 0800 POISON [764 766] New Zealand Emergency Services: 111

For General Information: Tony Greenheld -Integra Industries Ltd

Phone: +64 (03) 455 6805

Integra Industries Ltd has taken care in compiling this information. No liability is accepted directly or indirectly from its application as conditions of use are outside the Company's control. End users are obliged to conform to relevant Local Government regulations.

End of Safety Data Sheet.