
1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name TRIPASS ELV CORROBLUE
Synonyms ELV CORROBLUE

1.2 Uses and uses advised against

Uses INDUSTRIAL APPLICATIONS • SPECIALTY CHEMICAL • SURFACE FINISHING

1.3 Details of the supplier of the product

Supplier name DUBOIS CHEMICALS AUSTRALIA PTY LIMITED
Address 305 Frankston Dandenong Rd, Dandenong South, VIC, 3175, AUSTRALIA
Telephone (03) 9768 3860
Email sales@duboischemicals.com.au
Website <http://duboischemicals.com.au/>

1.4 Emergency telephone numbers

Emergency 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Corrosive to Metals: Category 1

Health Hazards

Acute Toxicity: Oral: Category 4
Acute Toxicity: Skin: Category 3
Skin Corrosion/Irritation: Category 1B
Skin Sensitisation: Category 1
Serious Eye Damage / Eye Irritation: Category 1
Acute Toxicity: Inhalation: Category 3
Respiratory Sensitisation: Category 1
Carcinogenicity: Category 1B
Toxic to Reproduction: Category 1B
Specific Target Organ Toxicity (Repeated Exposure): Category 2

Environmental Hazards

Aquatic Toxicity (Acute): Category 1
Aquatic Toxicity (Chronic): Category 2

2.2 GHS Label elements

Signal word DANGER

Pictograms



PRODUCT NAME TRIPASS ELV CORROBLUE**Hazard statements**

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350	May cause cancer.
H360F	May damage fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Prevention statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P234	Keep only in original packaging.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.

Response statements

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep 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.
P311	Call a POISON CENTRE or doctor/physician.
P314	Get medical advice/attention if you feel unwell.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.

Storage statements

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

Disposal statements

P501	Dispose of contents/container in accordance with relevant regulations.
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2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS**3.1 Substances / Mixtures**

Ingredient	CAS Number	EC Number	Content
AMMONIUM NITRATE	6484-52-2	229-347-8	1 to <10%
CHROMIUM HYDROXIDE SULPHATE	39380-78-4	-	1 to <10%
COBALT (II) NITRATE	10141-05-6	233-402-1	1 to <10%
NITRIC ACID	7697-37-2	231-714-2	1 to <10%
HYDROFLUORIC ACID	7664-39-3	231-634-8	1 to <7%
SULPHURIC ACID	7664-93-9	231-639-5	<1%
ADDITIVE(S)	-	-	Remainder

Ingredient Notes

Ingredients (not listed above) are considered trade secret and determined not to be hazardous, below cut off

limits, or do not affect classifications.

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Full-face Type B (Inorganic and acid gas) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
Skin	If skin contact occurs, immediately remove contaminated clothing. Flush skin under running water for 15 minutes. Then apply calcium gluconate gel or HEXAFLUORINE ®. Contact a Poisons Information Centre on 13 11 26 (Australia Wide).
Ingestion	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower should be available. Calcium gluconate gel should be readily available wherever the product is used or stored.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed

Eye Treatment: Flush the eye with water for at least 15 minutes, continue irrigation with isotonic saline or water until the severe pain of the burn is relieved. Instil several drops of sterile calcium gluconate (10% solution).

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases (nitrogen oxides, fluorides and hydrogen fluoride) when heated to decomposition. May evolve toxic sulphur oxides when heated to decomposition.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

2X
2 Fine Water Spray.
X Wear liquid-tight chemical protective clothing and breathing apparatus. Contain spill and run-off.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Contact emergency services where appropriate.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

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7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should be banded and have appropriate ventilation systems.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Chromium (metal), (II), (III) (as Cr)	SWA [Proposed]	--	0.04	--	--
Cobalt (metal and inorganic)	SWA [Proposed]	--	0.02	--	--
Cobalt, metal dust & fume (as Co)	SWA [AUS]	--	0.05	--	--
Hydrofluoric Acid	SWA [AUS]	3 (Peak)	2.6 (Peak)	--	--
Hydrogen fluoride (as F)	SWA [Proposed]	2 (Peak)	1.6 (Peak)	--	--
Nitric acid	SWA [AUS]	2	5.2	4	10
Nitric acid	SWA [Proposed]	2	5.2	--	--
Sulphuric acid	SWA [AUS]	--	1	--	3
Sulphuric acid	SWA [Proposed]	--	0.1	--	--

Biological limits

Ingredient	Reference	Determinant	Sampling Time	BEI
AMMONIUM NITRATE	ACGIH BEI	Methemoglobin in blood	During or end of shift	1.5% of hemoglobin
COBALT (II) NITRATE	ACGIH BEI	Cobalt in urine	End of shift at end of workweek	15 µg/L

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

Eye / Face	Wear splash-proof goggles. At high vapour levels, wear a faceshield.
Hands	Wear butyl or Viton® gloves.
Body	Wear rubber or PVC boots and a PVC apron and impervious coveralls.
Respiratory	Wear a Full-face Type B (acid gas) respirator. With prolonged use, wear an Air-line / Full Facepiece Supplied-Air Respirator (SAR).



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	BLUE/GREEN LIQUID
Odour	ACIDIC ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT 100°C to 110°C

9.1 Information on basic physical and chemical properties

Boiling point	
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	< 3
Vapour density	NOT AVAILABLE
Relative density	1.04 to 1.14
Solubility (water)	SOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

10. STABILITY AND REACTIVITY

10.1 Reactivity

This product is classified as corrosive to metals.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible (violently) with combustible materials, metals, reducing agents (e.g. sulphites), alkalis (e.g. sodium hydroxide), ammonia, heat and ignition sources.

10.6 Hazardous decomposition products

May evolve toxic gases (nitrogen oxides, fluorides and hydrogen fluoride) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Toxic in contact with skin or if inhaled. Ingestion may result in severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. Harmful if swallowed.

Information available for the ingredients:

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
AMMONIUM NITRATE	2217 mg/kg (rat)	> 5000 mg/kg (rat)	--
CHROMIUM HYDROXIDE SULPHATE	2900 mg/kg (mouse)	--	--
COBALT (II) NITRATE	434 mg/kg (rat)	--	--
NITRIC ACID	--	--	2.65 mg/l (Vapours)
HYDROFLUORIC ACID	--	--	342 ppm/1 hour (mouse)
SULPHURIC ACID	2140 mg/kg (rat)	--	18 mg/m ³ (guinea pig); 510 mg/m ³ /2hrs (rat)

Skin Causes severe burns. Contact may result in burning sensation (delayed), severe and deep burns, discolouration, severe tissue damage and death which may be delayed. May be absorbed through skin with highly toxic effects.

Eye Causes severe burns. Contact may result in irritation, lacrimation, pain, redness and corneal burns with possible serious eye damage.

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Sensitisation	May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Mutagenicity	Insufficient data available to classify as a mutagen.
Carcinogenicity	May cause cancer. Cobalt and cobalt compounds are classified as possibly carcinogenic to humans (IARC Group 2B). There is inadequate evidence in experimental animals for the carcinogenicity of chromium (III) compounds (IARC Monograph, Volume 49).
Reproductive	Cobalt nitrate is classified as damaging to fertility.
STOT - single exposure	Over exposure may result in mucous membrane irritation of the respiratory tract, coughing, bronchitis, ulceration, bloody nose, lung tissue damage, chemical pneumonitis, pulmonary oedema and death.
STOT - repeated exposure	Repeated exposure to cobalt compounds may result in liver, kidney, lung and heart damage.
Aspiration	Not expected to present an aspiration hazard.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Waste disposal Neutralise with lime, weak alkali or similar. For small amounts, absorb with sand or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information (if required).

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	2922	2922	2922
14.2 Proper Shipping Name	CORROSIVE LIQUID, TOXIC, N.O.S. (contains hydrofluoric acid, cobalt dinitrate)	CORROSIVE LIQUID, TOXIC, N.O.S. (contains hydrofluoric acid, cobalt dinitrate)	CORROSIVE LIQUID, TOXIC, N.O.S. (contains hydrofluoric acid, cobalt dinitrate)
14.3 Transport hazard classes	8 (6.1)	8 (6.1)	8 (6.1)
14.4 Packing Group	II	II	II

14.5 Environmental hazards

Marine Pollutant.

14.6 Special precautions for user

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Hazchem code	2X
EmS	F-A, S-B
Other information	The environmentally hazardous substance mark is not required when transported in packages of less than 5 kg/L (UN Model Regulations: Special Provision 375; IATA: Special Provision A197; IMDG: Special Provision 969) or less than 500 kg/L by Australian Road and Rail.

15. REGULATORY INFORMATION

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

Poison schedule	Classified as a Schedule 7 (S7) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classifications	Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).
Inventory listings	AUSTRALIA: AIC (Australian Inventory of Industrial Chemicals) Some components are listed on AIC, or are exempt. Chromium hydroxide sulphate is not listed on the public AIC.

16. OTHER INFORMATION

Additional information ACIDS: When mixing acids with water (diluting), caution must be taken as heat will be generated which causes violent spattering. Always add a small volume of acid to a large volume of water, NEVER the reverse.

HYDROFLUORIC ACID: Severe burns and tissue damage have been reported after direct contact with small quantities of low concentration (< 20 %) hydrofluoric acid. An immediate burning sensation and pain is not always apparent but is a delayed effect which may proceed to corrosive tissue damage and toxic systemic effects through absorption. Hydrofluoric acid has the potential to cause permanent tissue damage and to be fatal if contaminated areas are not treated immediately.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:
It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

PRODUCT NAME TRIPASS ELV CORROBLUE**Abbreviations**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared by

Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmtglobal.com
Web: www.rmtglobal.com

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