SAFETY DATA SHEET

COLDIP TRI-V 400 CL

469890

SECTION 1: COMPANY AND MIXTURE IDENTIFICATION

1.1 Product Name: COLDIP TRI-V 400 CL

1.2 Product Type and Use: Metal Finishing Additives

1.3 Manufacturer:

Columbia Chemical Corp.
1000 Western Drive
Brunswick, OH, 44212
330-225-3200
eh&s@columbiachemical.com

Only Representative:

Intertek France
Campus Industrial Grand
Chalon Route de Demigny
Chalon Sur Saone
France, 71102
T: +33 (0) 385 99 1280

1.4 Emergency Telephone Numbers

CHEMTEL
US & CANADA 800-255-3924
INTERNATIONAL 01-813-248-0585

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the mixture according to GHS (EC 1272 -2008)

Skin Corr. 1C, H314
Eye Dam. 1, H318
STOT SE 3, H335
Muta. 2, H341
Carc. 1B, H350
Repr. 1B, H360
Aquatic Chronic 2, H411

2.2 GHS Pictograms and H/P Statements

Signal Word: **DANGER**

Hazard and Precautionary Statements:

H314C: Causes severe skin burns and eye damage.
H318: Causes serious eye damage
H335: May cause respiratory irritation
H341: Suspected of causing genetic defects
H350 1B: May cause cancer.
H360 1B: May damage fertility or the unborn child.
H411: Toxic to aquatic life with long lasting effects.

P201: Obtain special instructions before use.
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P264: Wash thoroughly after handling.
P270: Do no eat, drink or smoke when using this product.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents/container in accordance with all local/regional/national/international regulations.

2.3 Additional Information:

NONE

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Name	Product Identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
CHROME III SALT	CAS no. T.S. EC no. 235-595-8 Reach no. Low volume exemption JCSL no. 1-287	< 15%	Skin Corr. 1C; H314 Eye Dam 1; H318 STOT SE 3; H335
COBALT SALT	CAS no. T.S. EC no. 233-334-2 Reach no. 01-2119517426-41 JCSL no. 1 - 270	< 3%	Acute Tox 4 (Oral), H302 Skin Sens 1, H317 Resp Sens 1, H334 Muta 2, H341 Carc 1B, H350 Repr 1B, H360 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
AMMONIUM BIFLUORIDE	CAS no. 1341-49-7 EC no. 215-676-4 Reach no. 05-2118253908-30 JCSL no. 1 - 311	< 1%	Acute Tox. 3, H301 Skin Corr. 1B, H314

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact: Immediately flush eyes with flowing water for at least TWENTY (20) minutes. Call emergency medica services.

Skin Contact: Flush exposed area with running water for at least TWENTY (20) minutes. Remove and isolate contaminated clothing. Get medical attention.

Inhalation: Move exposed individual to fresh air. Give oxygen if breathing is difficult. Provide artificial respiration using a mask equipped with a one-way valve if victim is not breathing. Call emergency medical services.

Ingestion: Provide large quantities of water if victim is conscious and call emergency medical services immediately. Never give anything by mouth to an unconscious person.

4.2 Important symptons and effect acute and delayed

Symptoms/Injuries: May cause eye irritation, burns or blindness.

Inhalation: Inhalation of mist may cause irritation of the respiratory system.

Skin contact: May cause severe burns, redness and pain. Skin contact with some chromium compounds may cause allergic dermatitis. May be absorbed through broken skin.

Eye contact: May cause serious eye irritation and redness.

Ingestion: Sore throat. Abdominal pain, nausea. May cause burns or irritation of the linings of the mouth, throat and gastrointestinal tract.

4.3 Indication of any immediate medical attention and special treatment needed

Seek immediate medical attention if splashed in eyes or if there is a difficulty in breathing while using this product.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media Dry chemical powder. Water spray. Carbon dioxide (CO2)

5.2 Special Hazards from the mixture Mixture itself does not burn but may decompose upon heating to produce fumes. Cool plastic drum, pail or tote containers which may swell or rupture upon heating.

5.3 Advice for firefighters

Protection from firefighting: Use self-contained breathing apparatus and chemically protective clothing. For further information refer to section 8, Exposure-controls/personal protection.

Other Information: Avoid eye and skin contact.

HMIS: 3-0-1-J

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 Non-emergency personnel Ensure adequate ventilation, Use personal protective equipment.

6.1.2 Emergency responders Ensure adequate ventilation, Use personal protective equipment.

6.2 Environmental precautions Avoid discharge into soil, water or air.

6.3 Containment and clean up

Methods for cleaning up: May be hazardous to aquatic life if released to open waters. Carefully sweep up spilled material and transfer to a suitable container for disposal, Contain spilled material and ventilate area.

Other information: Comply with local regulations for disposal.

6.4 Reference to other sections Refer to section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling Avoid contact with skin, eye and clothing. Avoid breathing dust, mist or spray. Refer to section 8 for exposure controls.

7.2 Storage and Incompatibles

Storage Condition(s):

Store tightly closed in a dry, cool and well-ventilated place.

Incompatible materials: Combustible organic materials, organic acids, or readily oxidizible materials like paper, wood, sulfur and aluminium.

Storage area: Floors should be impenetrable, resistant to liquids and easy to clean. Keep away from heat and direct sunlight. Do not store near oxidizing agents. Store in dry,cool, well-ventilated area.

7.3 Specific end use(s) Metal Finishing

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control Parameters

AMMONIUM BIFLOURIDE (1341-49-7)		
USA	ACGIH - TEL	2.5 mg/m3 as F
CHROME III SALT (T.S.)		
USA	ACGIH - TEL	0.5 mg/m3 as Cr
COBALT SALT (T.S.)		
USA	ACGIH - TEL	0.02 mg/m3 as Co

8.2 Exposure Controls

Exposure Controls: Maintain employee exposures to levels below the applicable exposure limits.

Ventilation: Use local or general exhaust to reduce airborne exposures.

Respiratory Protection: To reduce exposure a NIOSH-approved respirator should be used.

Hand Protection: Wear chemical resistant rubber gloves.

Eye Protection: Wear chemical safety glasses

Skin Protection: Wear protective clothing as appropriate.

Other: Launder contaminated clothing before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic phyiscal and chemical properties

Appearance:	Green, Slight Teal Liquid	**Flammability (solid,gas):**	No data available
Odour:	Slight odor	**Explosive Limits:**	No data available
Odour Threshhold:	No data available	**Vapor Pressure:**	No data available
pH:	3.5 - 4.7 (8% Solution)	**Vapour Density:**	No data available
Melting Point:	No data available	**Relative Density:**	1.10 - 1.19
Solidification Point:	No data available	**Solubility:**	Complete in water
Boiling Point:	No data available	**Self Ignition Temperature:**	No data available
Flash point:	No data available	**Decomposition Temperature:**	No data available
Evap rate rel to butylacetate:	No data available	**Viscosity:**	No data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Product is an acidic solution and may react vigorously with alkaline solutions.

10.2 Chemical Stability Product is stable under normal conditions only. Product may not be stable under heat, moisture, pressure ventilation or exposure to incompatible or reactive materials.

10.3 Possibility of hazardous reactions Product will not undergo polymerization.

10.4 Conditions to avoid Keep away from heat. Keep out of direct sunlight.

10.5 Incompatible materials Strong basic solutions.

10.6 Hazardous decomposition products Nitrogen oxides (NOx) and chromium compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Toxicological effects

Acute toxicity: Hamful if swallowed.

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Respiratory or skin sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.

Embryotoxic, Teratogenic, or Mutagenic: Products that contain cobalt salts may damage fertility or the unborn child.

Carcinogenicity: Products that contain cobalt salts may cause cancer based on testing data. Risk of cancer depends on level of exposure.

Reproductive or Gonadotoxicity: Products that contain cobalt salts may damage fertility or the unborn child.

Specific target organ toxicity (sinlge exposure): None identified.

CARCINOGENS :

IARC :	YES	**OSHA :**	NONE
NTP :	NONE	**EU :**	YES

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Material may cause long lasting harmful effects to aquatic life.
12.2 Persistence & Degradability	No persistence and biodegradability data available.
12.3 Bioaccumulative Potential	No known bioaccumalative potential.
12.4 Mobility in Soil	No known mobility in soils.
12.5 PBT and vPvB Assessment	A PBT or vPvB assesment has NOT been completed for this product.
12.6 Other Adverse Effects	No other adverse affects known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste Disposal:	Dispose of this material and its container to hazardous or special waste collection point. Disposal must be done according to official regulations. Do not empty into drain or the aquatic environment.
Ecology - waste materials:	Dispose of all waste in accordance with federal, state, and local regulations.

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT (Land)	**Department of Transportation**
Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (AMMONIUM BIFLUORIDE AND TRIVALENT CHROMIUM COMPOUNDS)
Hazard Class:	8
UN / NA Number:	3264
Packing Group:	II
Labels Required:	CLASS 8 CORROSIVE
Marine Pollutant:	NO

I.A.T.A / I.C.A.O. (AIR)	**International Air Transportation Authority / International Civil Air Organization**
Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (AMMONIUM BIFLUORIDE AND TRIVALENT CHROMIUM COMPOUNDS)
Hazard Class:	8
UN / NA Number:	3264
Packing Group:	II
Labels Required:	CLASS 8 CORROSIVE
Marine Pollutant:	NO

I.M.D.G. (Sea)	**International Maritime Organization**
Proper Shipping Name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., (AMMONIUM BIFLUORIDE AND TRIVALENT CHROMIUM COMPOUNDS)
Hazard Class:	8
UN / NA Number:	3264
Packing Group:	II
Labels Required:	CLASS 8 CORROSIVE
Marine Pollutant:	MARINE POLLUTANT

ERG Info:	154
Reportable Quantity:	NONE
Placard:	AS REQUIRED

14.5 Environmental Hazards	This mixture may be considered environmentally hazardous according to the UN Model Regulations and is considered a marine pollutant according to the IMDG Code.
14.6 Special Precautions	No other special precautions are required for transport of this mixture.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations.

Classification according to Directive 1999/548/EC

C; R34

DPD Pictograms

Risk and Safety Phrases:

R34, R42/43, R49, R60, R68, S22, S26, S28, S36/37/39, S37, S45, S53, S60, S61

INGREDIENT	CAS NUMBER	CERCLA	SARA 313	SARA 302	REACH SVHC List	ROHS 2
AMMONIUM BIFLUORIDE	1341-49-7	X				
CHROME III SALT	T.S.	X				
COBALT SALT	T.S.		X		X	

NATIONAL INVENTORIES:

AICS (Australia):	Components listed	NZIoC (New Zealand):	Components listed
DSL (Canada):	Components listed	PICCS (Philippines):	Components listed
ECL (Korea):	Status not determined	TSCA (USA):	Not all components listed
EINECS (Europe):	Components listed	SWISS (Switzerland):	Components listed
ENCS (Japan):	Components listed	ECN (Taiwan):	Not all components listed
IECSC (China):	Components listed	NDSL (Canada):	Not all components listed

WHMIS:

15.2 Chemical Safety Assessment A Chemical Safety Assessment has not been carried out for this mixture by the supplier.

SECTION 16 : OTHER INFORMATION

16.1 Method of Evaluation

Mixture hazard classification per UN GHS Purple Book, (EC) 1272/2008 Article 9(4), OSHA Haz-Com 2012.

16.3 Other Information

This information is provided in good faith from current, reliable sources and is believed to be correct. No warranty is expressed, implied, or given. The seller of this material assumes no responsibility for any damages resulting from contact with this material

16.4 Revision History

5/4/15: Rev. S2, 3, 11, 14, 15.
3/26/15: Rev. S2 and S16.
4/13/14: New release.