Industrial Zip Strip

SECTION 1. IDENTIFICATION

Product Identifier	Industrial Zip Strip
Other Means of Identification	33-621ZIP, 33-621ZIPEXP, 33-624ZIP, 33-624ZIPEXP, 33-628ZIPEXP
Recommended Use	Please refer to Product label.
Restrictions on Use	None known.
Manufacturer / Supplier	Recochem Inc., 850 Montee de Liesse, Montreal, QC, H4T 1P4, Compliance and Regulatory Department, 905-878-5544, www.recochem.com
Emergency Phone No.	CANUTEC, 613-996-6666, 24 Hours
SDS No.	01290021

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquid - Category 3; Acute toxicity (Oral) - Category 3; Acute toxicity (Dermal) - Category 3; Acute toxicity (Inhalation) - Category 3; Skin corrosion/irritation - Category 1A; Germ cell mutagenicity - Category 1B; Carcinogenicity - Category 1B; Reproductive Toxicity - Category 2; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2; Aspiration hazard - Category 1

GHS Label Elements

Signal Word:
Danger

Hazard Statement(s):

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs (nervous system) through prolonged or repeated exposure if inhaled.
H373	May cause damage to organs (blood, liver) through prolonged or repeated exposure if swallowed.

Precautionary Statement(s):
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, and hot surfaces. – No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, lighting, and other equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe fume, mist, vapours, spray.
P264 Wash hands and 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.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 Immediately call a POISON CENTRE/doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P311 Call a POISON CENTRE/doctor.
P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311 Call a POISON CENTRE/doctor.
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/doctor.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P370 + P378 In case of fire: Use appropriate foam, carbon dioxide, dry chemical powder, water spray or fog to extinguish.

Storage:
Store in a well ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Methylene chloride	75-09-2	60-100	
Methanol	67-56-1	7-13	
Alcohols, C6-12, ethoxylated, liquids	68439-45-2	1-5	
Hydrotreated kerosene	64742-47-8	1-5	
1,2-Epoxybutane	106-88-7	0.1-1	
Tetrachloroethylene	127-18-4	0.1-1	
Propylene Oxide	75-56-9	0.1-1	

Notes

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. DO NOT move about unnecessarily. Symptoms of pulmonary edema may be delayed. If breathing has stopped, trained personnel should begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor.

Skin Contact

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Call a Poison Centre or doctor if you feel unwell or are concerned.

Eye Contact

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists, get medical advice/attention. Immediately call a Poison Centre or doctor.

Ingestion

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. If breathing has stopped, trained personnel should immediately begin rescue breathing. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Avoid mouth-to-mouth contact by using a barrier device. Immediately call a Poison Centre or doctor. Treatment is urgently required.

Most Important Symptoms and Effects, Acute and Delayed

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Immediate Medical Attention and Special Treatment

Target Organs

Skin, blood, liver, kidneys.

Special Instructions

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Flammable liquid and vapour. Can ignite at room temperature. Releases vapour that can form explosive mixture with

air. Can be ignited by static discharge. Can accumulate static charge by flow, splashing or agitation. See Section 9 (Physical and Chemical Properties) for flash point and explosive limits. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, resulting in a fire and/or health hazard. Closed containers may rupture violently when heated releasing contents.
In a fire, the following hazardous materials may be generated: very toxic, flammable formaldehyde; corrosive chlorine; very toxic carbon monoxide, carbon dioxide; irritating chemicals; toxic chemicals.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Evacuate downwind locations. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Eliminate all ignition sources. Use grounded, explosion-proof equipment. May accumulate in hazardous amounts in low-lying areas especially inside confined spaces, if ventilation is not sufficient. Distant ignition and flashback are possible.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions for Safe Storage

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Alcohols, C6-12, ethoxylated, liquids	Not established	Not established	Not established	Not established		
Methanol	200 ppm	250 ppm	200 ppm	250 ppm		
Methylene chloride	50 ppm A3	Not established	25 ppm	125 ppm		
Hydrotreated kerosene	200 mg/m3 A3	Not established	Not established	Not established		
1,2-Epoxybutane	Not established	Not established	Not established	Not established		
Tetrachloroethylene	Not established	Not established	Not established	Not established		
Propylene Oxide	Not established	Not established	Not established	Not established		

Appropriate Engineering Controls

Do not allow product to accumulate in the air in work or storage areas, or in confined spaces. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Use non-sparking ventilation systems, approved explosion-proof equipment and intrinsically safe electrical systems in areas where this product is used and stored. Control static electricity discharges which includes bonding of equipment to ground. Use only non-combustible, compatible materials for walls, floors, ventilation system, air cleaning devices, pallets, shelving. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: natural rubber.

Respiratory Protection

Wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Milky white.
Odour	Chlorinated Hydrocarbon
Odour Threshold	Not available
pH	Not applicable
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	> 40 ºC (104 ºF)
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	266.3 mm Hg (35.5 kPa) at 20 ºC
Vapour Density (air = 1)	2.9
Relative Density (water = 1)	1.19

Solubility	Soluble in water; Soluble in all proportions in common organic solvents.
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)

Other Information

Physical State	Liquid
Molecular Weight	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

Decomposes in the presence of water. See “Hazardous Decomposition Products”.

Conditions to Avoid

Prolonged exposure to high temperatures. Open flames, sparks, static discharge, heat and other ignition sources. Water, moisture or humidity.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid).

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; corrosive hydrogen chloride; corrosive phosgene; corrosive chlorine; very toxic, flammable formaldehyde.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; inhalation; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Alcohols, C6-12, ethoxylated, liquids	Not available	Not available	Not available
Methanol	83867.5 mg/m3 (rat) (4-hour exposure)	5628 mg/kg (rat)	15800 mg/kg (rabbit)
Methylene chloride	17365-20375 ppm (mouse) (4-hour exposure)	1400 mg/kg (female rat)	> 2000 mg/kg (rabbit)
Hydrotreated kerosene	> 5 mg/L (rat) (4-hour exposure)	> 5000 mg/kg (rat)	> 2000 mg/kg (rabbit)
1,2-Epoxybutane		500 mg/kg (rat)	2100 mg/kg (rabbit)
Tetrachloroethylene	2613 ppm (mouse) (4-hour exposure)	2600 mg/kg (rat)	> 3245 mg/kg (rabbit)
Propylene Oxide	1740 ppm (mouse) (4-hour exposure)	380 mg/kg (rat)	1.5 ml/kg bw (rabbit)

LC50: Not applicable.

LD50 (oral): Not applicable.

LD50 (dermal): Not applicable.

Skin Corrosion/Irritation

Human experience and animal tests show skin corrosion. (Methylene chloride)

Serious Eye Damage/Irritation

Contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result. The vapour also irritates or burns the eyes. Permanent damage including blindness can result. (Methylene chloride)

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May be harmful based on human experience and animal tests. At high concentrations depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness. (Methylene chloride)
Toxic, can cause death based on human experience and animal tests. At high concentrations depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness. (Methylene chloride)
May be harmful based on human experience and animal tests. Nose and throat irritation. Toxic, can cause death based on human experience and animal tests. Decreased ability of the blood to carry oxygen. (Methylene chloride)
Harmful based on human experience and animal tests. Depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness and confusion. A severe exposure can cause unconsciousness. (Methanol)

Skin Absorption

Not harmful based on limited evidence. (Methylene chloride)
Harmful based on human experience and animal tests. Can cause effects as described for inhalation. (Methanol)

Ingestion

Toxic, can cause death based on human experience. Severe irritation or burns to the mouth, throat and stomach. Permanent damage can result. (Methylene chloride)
Toxic, can cause death based on human experience and animal tests. depression of the central nervous system, impaired vision and blindness. In some cases, there may be delayed effects on the nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness and confusion. A severe exposure may cause stomach pain, muscle pain, difficult breathing and coma. Vision can be impaired and permanent blindness can result. There may be other permanent effects on the nervous system e.g. tremor, seizures. (Methanol)

Aspiration Hazard

Can cause lung damage if aspirated based on human experience. Death can result.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause Following skin contact and/or if swallowed: dermatitis. (Hydrotreated kerosene). (Methylene chloride). (Methanol)
May cause If inhaled: effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above, harmful effects on the heart. (Methylene chloride)
May cause If inhaled and/or following skin contact: at high concentrations effects on the central nervous system. (Methylene chloride). (Methanol)
May cause If inhaled: at high concentrations harmful effects on the kidneys, harmful effects on the liver. (Methylene chloride)
Cause If inhaled, following skin contact and/or if swallowed: visual distubances, cataracts, opacities. (Methanol)

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer.
Human experience shows an allergic skin reaction (skin sensitization) in rare cases following exposure at work.

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Alcohols, C6-12, ethoxylated, liquids	Not Listed	Not designated	Not Listed	Not Listed
Methanol	Not Listed	Not designated	Not Listed	Not Listed

Methylene chloride	Group 2A	A3	Reasonably anticipated	Listed
Hydrotreated kerosene	Group 3	A3	Not Listed	Listed
1,2-Epoxybutane	Group 2B	Not designated	Not Listed	Not Listed
Tetrachloroethylene	Group 2A	A3	Reasonably anticipated	Not Listed
Propylene Oxide	Group 2B	A3	Reasonably anticipated	Not Listed

Key to Abbreviations

Group 2A = Probably carcinogenic to humans.
Group 3 = Not classifiable as to its carcinogenicity to humans.
A3 = Animal carcinogen.
Reasonably anticipated = Reasonably anticipated human carcinogen.

Reproductive Toxicity

Development of Offspring

Studies in people show effects on the unborn child. However, these effects are only seen with significant toxicity in the mothers. Has been associated with: decreased weight. (Methylene chloride)
Conclusions cannot be drawn from the limited studies available. May harm the unborn child. Has been associated with: miscarriage. (Methylene chloride)

Animal studies show effects on the offspring. (Methanol).

Sexual Function and Fertility

May cause effects on sexual function and/or fertility based on limited evidence. Male and female sterility. (Methylene chloride)

Effects on or via Lactation

Can transfer to mother's milk.

Germ Cell Mutagenicity

Causes mutagenicity in non-reproductive (somatic) cells in tests using live animals. Conclusions cannot be drawn from the limited studies available. If inhaled. (Methylene chloride)

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Alcohols, C6-12, ethoxylated, liquids	Not available	Not available		
Methanol	15400 mg/L (Lepomis macrochirus (bluegill); 96-hour)	10000 mg/L (Daphnia magna (water flea); 48-hour)		
Methylene chloride	193 mg/L (Pimephales promelas (fathead minnow); 96-hour)	1682 mg/L (Daphnia magna (water flea); 48-hour)		
Hydrotreated kerosene	2.2 mg/L (Lepomis macrochirus (bluegill); 96-hour)	Not available		

1,2-Epoxybutane	Not available	Not available		
Tetrachloroethylene	13 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)	18 mg/L (Daphnia magna (water flea); 48-hour; static)		
Propylene Oxide	170 mg/L (Goldfish; 24 hr)	Not available		

Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Alcohols, C6-12, ethoxylated, liquids	Not available		Not available	
Methanol	7900 mg/L (Lepomis macrochirus (bluegill); 200-hrs)			
Methylene chloride	Not available		Not available	
Hydrotreated kerosene	Not available		Not available	
1,2-Epoxybutane	Not available		Not available	
Tetrachloroethylene	Not available		Not available	
Propylene Oxide	Not available		Not available	

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	2810	TOXIC LIQUID, ORGANIC, N.O.S. (Methanol, Dichloromethane)	6.1	III
US DOT	2810	TOXIC LIQUID, ORGANIC, N.O.S. (Methanol, Dichloromethane)	6.1	III

Environmental Hazards Marine Pollutant (Hydrotreated kerosene)

Special Precautions Please note: In containers of 5 L (5Kg) capacity or less this product is classified as a "Limited

for User	Quantities""Consumer Commodity" under TDG regulations. In containers of 5 L (5Kg) capacity or less this product is classified as a "Consumer Commodity" under DOT regulations.

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists

California Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer.
WARNING: This product contains chemicals known to the State of California to cause Reproductive Toxicity.

SECTION 16. OTHER INFORMATION

SDS Prepared By	Compliance and Regulatory Department
Phone No.	905-878-5544
Date of Preparation	October 26, 2015
Additional Information	We are committed to uphold the Industry Consumer Ingredient Communication Voluntary Initiative. Please send us your request by visiting our website at www.recochem.com. Ingredients present (intentionally added ingredients) at a concentration of greater than one percent (1%) shall be listed in descending order of predominance. Ingredients present at a concentration of not more than one percent shall be listed but may be disclosed without respect to order of predominance.
Disclaimer	Notice to reader: To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.