Section: 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: ZC-029 For Additional Product 1 (800) 648-2661

Information:

Chemical Family: Corrosion Preventive

Manufacturer: Zip-Chem Products In Emergency: 1 (800) 424-9300

400 Jarvis Drive Morgan Hill, CA 95037

Section: 2 COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

FOR EXPOSURE LIMITS SEE SECTION 8
FOR OTHER TOXICOLOGICAL INFORMATION SEE SECTION 11

HAZARDOUS INGREDIENTS

Descriptive Name	CAS Number	Percentage Range	Hazard Type per CFR 1910.1200	Exposure Limits	LD ₅₀	LC ₅₀	NTP, IARC, Or OSHA Carcinogen
Odorless Petroleum Naphtha	64741-65-7	20%	Physical hazard, Flammable	OSHA PEL 100 ppm ACGIH TLV 100 ppm	Not Determined	Not Determined	No
Naphtha Solvent	64742-95-6	20%	Physical hazard, Flammable	OSHA PEL 100 ppm ACGIH TLV 100 ppm	Not Determined	Not Determined	No

Section: 3 HAZARDS IDENTIFICATION

PHYSICAL HAZARDS: Flammable liquid

ACUTE HEALTH EFFECTS: Breathing high concentrations of vapors may cause temporary nervous

system depression with anesthetic effects such as dizziness, headache,

or nausea.

CHRONIC HEALTH EFFECTS: Prolonged exposure to extremely high concentrations of the vapors may

lead to narcosis, cardiac irregularities, unconsciousness or death.

Prolonged or repeated exposure to skin may cause dermatitis.

HMIS RATINGS:

Health: 1
Flammability: 2
Reactivity: 0
Protective Equipment: H

Section: 4 FIRST AID MEASURES

EYES: May be an eye irritant. Flush immediately with water for 15 minutes and take to physician.

SKIN: Wash affected area and consult a physician if irritation persists.

INGESTION: Call a physician and/or transport to emergency facility immediately. Do not induce vomiting

so as to avoid aspiration of material into the lungs.

INHALATION: Remove from exposure and restore breathing. Seek medical attention.

Section: 5 FIRE AND EXPLOSION HAZARDS

FLAMMABILITY DATA:

FLAMMABLE/COMBUSTIBLE/PYROPHORIC: Flammable

FLASH POINT AND METHOD: 120 deg F PMCC

AUTOIGNITION TEMPERATURE: Not established

FLAMMABLE LIMITS AT NORMAL TEMPERATURE AND PRESSURE (PERCENT VOLUME IN AIR):

LEL: 1% UEL: 7%

NFPA RATINGS (per NFPA 704): Health – 0 Flammability – 2 Instability - 0

EXPLOSION DATA:

SENSITIVITY TO MECHANICAL IMPACT: Not Sensitive SENSITIVITY TO STATIC DISCHARGE: Not Sensitive

EXTINGUISHING MEDIA: Foam, Alcohol Foam, CO2, Dry Chemical, Water Fog

FIRE FIGHTING TECHNIQUES AND COMMENTS: Use standard firefighting techniques to fight fires

involving this material

HAZARDOUS COMBUSTION PRODUCTS:

Section: 6 ACCIDENTAL SPILL/RELEASE INFORMATION

FOR ALL TRANSPORTATION ACCIDENTS CALL CHEMTREC AT 1-800-424-9300.

REPORTABLE QUANTITY: Not Applicable

SPILL MITIGATION PROCEDURES:

Stop source of spill as soon as possible and notify appropriate personnel. Burm around spill area to prevent spill from spreading. Ventilate area. Do not flush into sewers.

AIR RELEASE:

Vapors may be suppressed by use of water fog or spray. Contain all liquid for treatment or neutralization.

WATER RELEASE:

This material is lighter than and nearly insoluble in water. It can be contained by damming the water and removing top layer of the mixture.

LAND SPILL:

Create a trench to contain materials. Spilled materials may be contained using sand, clay, earth or a commercial absorbent. Do not place materials back in their original container.

SPILL RESIDUES:

Dispose of per guidelines under section 13, DISPOSAL CONSIDERATIONS.

PERSONNEL PROTECTION FOR EMERGENCY SPILL AND FIRE FIGHTING SITUATIONS:

Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to gloves, apron, and safety glasses.

Section: 7 HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH EYES AND CLOTHING. UPON CONTACT WITH SKIN OR EYES WASH OFF WITH WATER.

STORAGE CONDITIONS:

Store in a cool, dry, well-ventilated place.

STORE AT TEMPERATURES BETWEEN 40-100°F. DO NOT STORE OR USE NEAR HEAT, SPARKS, OR FLAMES. AVOID BREATHING VAPORS. VAPORS ARE HEAVIER THAN AIR AND WILL COLLECT IN LOW AREAS AND OTHER CONFINED AREAS.

PRODUCT STABILITY AND COMPATIBILITY:

SHELF LIFE LIMITATIONS: 36 months from date of manufacture when stored at recommended storage conditions.

INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT: Strong Oxidizing Agents INCOMPATIBLE MATERIALS FOR PACKAGING: No common metal alloys known to be incompatible.

Section: 8 PREVENTIVE MEASURES

PERSONAL PROTECTION FOR ROUTINE USE OF THIS PRODUCT:

RESPIRATORY PROTECTION: Breathing apparatus is not necessary for application if local ventilation maintains below exposure limits given in Section 2. If application requires breathing apparatus, use a half face mask with organic vapor cartridges. Refer to NIOSH publication No. 89-105 and NIOSH No. 87-116. See OSHA requirement under 29 CFR 1910.1025 and 29 CFR 1910.134.

SKIN AND EYE PROTECTIVE EQUIPMENT: Butyl lined gloves are recommended to prevent skin contact. Chemical goggles to prevent eye contact are recommended.

ENGINEERING CONTROLS

VENTILATION: Local or mechanical to keep Section II ingredients below their exposure limits. EQUIPMENT SPECIFICATIONS (WHEN APPLICABLE):

RESPIRATOR TYPE: Not required if local ventilation maintains below exposure limits PROTECTIVE CLOTHING TYPE: (This includes: gloves, boots, apron, protective suit): Butyl gloves, impervious apron, chemical goggles

WASTE DISPOSAL:

Spilled material collected in absorbent material should be transferred to steel disposal or recovery drums. If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste under Subpart D. If this product becomes a waste, it should be disposed of in accordance with local, state and federal regulations by incineration.

Section: 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE(gas, liquid, solid): Liquid

APPEARANCE: Brown liquid

ODOR: Mild odor

FREEZING POINT: Not Determined BOILING RANGE: 375 Deg F

DECOMPOSITION TEMPERATURE: Not Determined

SPECIFIC GRAVITY (H20=1): 0.9 BULK DENSITY: 7.5 lbs/gal @ 70 Deg F

pH @ 25 Deg C: Not Applicable

VAPOR PRESSURE: @ 25 Deg C: Not Determined

NO

Zip-Chem ProductsZC-029 Material Safety Data Sheet

SOLUBILITY IN WATER: Negligible VOLATILES, PERCENT BY WEIGHT: 50% EVAPORATION RATE: Slower than Ether VAPOR DENSITY: Heavier than air

VOLATILE ORGANIC COMPOUND (VOC) G/L: 411 grams/Liter

Section: 10 STABILITY AND REACTIVITY DATA

CONDITIONS UNDER WHICH THIS PRODUCT MAY BE UNSTABLE:

MECHANICAL SHOCK OR IMPACT: No ELECTRICAL (STATIC) DISCHARGE: No HAZARDOUS POLYMERIZATION: Will Not Occur INCOMPATIBLE MATERIALS: Strong Oxidizing Agents CONDITIONS OF REACTIVITY: None known

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, other

combustion products of carbon.

Section: 11 TOXICOLOGICAL PROPERTIES

ROUTES OF ABSORPTION

This product will not exert a significant adverse effect to health from any route of exposure. WARNING STATEMENTS AND WARNING PROPERTIES:

DO NOT TAKE INTERNALLY. MAY CAUSE EYE AND MUCOUS MEMBRANE IRRITATION

SIGNS, SYMPTOMS AND EFFECTS OF EXPOSURE

INHALATION

ACUTE: Nausea or dizziness may occur from breathing high concentrations.

CHRONIC: Breathing extremely high concentrations of the vapors may lead to anesthetic effects such as dizziness, headache, or nausea. Prolonged exposure to extremely high concentrations of vapor may lead to narcosis, cardiac irregularities, unconsciousness or death.

SKIN

ACUTE: May cause irritation or burning sensation.

CHRONIC: Prolonged or repeated contact may cause dermatitis, exercise due care.

EYE

May cause irritation.

INGESTION

ACUTE: May cause nausea or vomiting.

CHRONIC: If large quantities are swallowed, do not induce vomiting as it might cause aspiration of vomitus into the lungs. Take to a physician immediately.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

INTERACTIONS WITH OTHER CHEMICALS THAT ENHANCE TOXICITY: None known or reported. ACUTE TARGET ORGAN TOXICITY: No organs know to be damaged from exposure to this product. CHRONIC TARGET ORGAN TOXICITY: There are no known effects from repeated exposure.

REPRODUCTIVE AND DEVELOPMENTAL TOXICITY: There are no known or reported effects on reproductive function or fetal development.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED?

MUTAGENICITY: This product is not known to be mutagenic.

EXPOSURE LIMITS: Not Determined

Section: 12 ECOLOGICAL INFORMATION

AQUATIC TOXICITY: None known or reported.

Section: 13 DISPOSAL CONSIDERATIONS

Spilled material collected in absorbent material should be transferred to steel disposal or recovery drums.

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste under Subpart D. If this product becomes a waste, it should be disposed of in accordance with local, state and federal regulations by incineration.

Section: 14 TRANSPORT INFORMATION

DOT SHIPPING NAME: Flammable Liquid, N.O.S. (Odorless Petroleum Naphtha)

DOT HAZARD CLASS: 3
DOT PACKING GROUP: III

DOT REPORTABLE QUANTITY: None found in 49 CFR 172.101 UN/NA ID NO.:UN1993

Section: 15 REGULATORY INFORMATION

INTERNATIONAL

All components of this product are listed on the following inventories: MITI (Japan) EINECS (EEC) DSL (Canada).

FEDERAL

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The components of this product are listed on the TSCA inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE III (SARA):

Section 302/304

Requires emergency planning based on 'Threshold Planning Quantities' (TPQs), and release reporting based on Reportable Quantities (RQs) of 'Extremely Hazardous Substances' (EHS) listed in Appendix A of 40 CFR 355. There are no components of this material with known CAS numbers that are on the EHS list.

Section 311 & 312

Based upon the available information, this material and/or components is classified as a health and/or physical hazards according to Section 311 & 312:

Descriptive Name	CAS Number	Percentage Range	Hazard Type per CFR 1910.1200	Exposure Limits	LD ₅₀	LC ₅₀	NTP, IARC, Or OSHA Carcinogen
Odorless Petroleum Naphtha	64741-65-7	20%	Physical hazard, Flammable	OSHA PEL 100 ppm ACGIH TLV 100 ppm	Not Determined	Not Determined	No
Naphtha Solvent	64742-95-6	20%	Physical hazard, Flammable	OSHA PEL 100 ppm ACGIH TLV 100 ppm	Not Determined	Not Determined	No

Section 313

This material does not contain chemicals with known CAS numbers subject to the reporting requirements of SARA Title III, Section 313 and 40 CFR 372:

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

This material does not contain chemical(s) with known CAS numbers classified as hazardous substances subject to the reporting requirements of CERCLA (40 CFR 302) and to the release reporting requirements of SARA (Section 302) based on reportable quantities (RQs):

OSHA Regulations

'Chemical-specific' U. S. Occupational Safety and Health Administration (OSHA) regulations (1910.1002 to 1910.1050) presented under 29 CFR 1910 do not apply to this material or its components.

Other EPA Regulations

No additional information available.

State

California Safe Drinking Water and Toxic Enforcement Act of 1988- Proposition 65

This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels that would be subject to the proposition

California South Coast Air Quality Management District (SCAQMD) Rule 443.1 (VOC's)

A Volatile Organic Compound (VOC) is any volatile compound of carbon excluding methane, carbon monoxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1-trichloroethane, methylene chloride, FC-23, CFC-113, CFC-12, CFC-11, CFC-22, CFC-114, and CFC-115. By this definition, this is a VOC material.

Massachusetts Right to Know Substance List (MSL) [105 CMR 670.000]

Hazardous Substances (MSL-HS) on the MSL must be identified when present in materials at levels greater than state specified criterion. The criterion is: >=1%. Components with CAS numbers present in this material at a level which could require reporting under the statute are:

<u>Chemical</u>	CAS Number
Odorless Petroleum Naphtha	64741-65-7
Naphtha Solvent	64742-95-6

Extraordinarily Hazardous Substances (MSL-EHS) on the MSL must be identified when present in materials at levels greater than state specified criterion. The criterion is >= 0.0001%. There are no materials present that could require reporting under this statute.

Pennsylvania Right to Know Hazardous Substance List

Hazardous Substances (PA-HS) must be identified when present in materials at levels greater than the state specified criterion. The criterion is >=1%. Components with CAS numbers present in this material at a level that could require reporting under the statute are:

<u>Chemical</u>	CAS Number
Odorless Petroleum Naphtha	64741-65-7
Naphtha Solvent	64742-95-6

Section: 16 PREPARATION INFORMATION

REVISION INFORMATION: Periodic review PREPARED BY: J Smith APPROVAL DATE: 2/8/10

SUPERSEDES: 4/13/05

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