

Section 1. Identification: Product identifier and chemical identity

1.1 Product Identifier

Product Name: CorrosionX[®] Aerosol
Product Numbers: 90101, 90102
Synonyms: Not applicable
SDS Number: Not applicable
Issue Date: 3/14/2016
Version Number: A1.51
Revision Date: 2/6/2018

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses: Corrosion Inhibitor / Moisture Displacer / Lubricant
Uses advised against: Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

1.3 Details of the supplier of the safety data sheet

Manufacturer: U.S. Corrosion Technologies, LLC
2638 National Drive, Garland, TX 75041
Telephone: 972-271-7361
Fax: 972-278-9721
Email: info@corrosionx.com
Website: www.corrosionx.com
Distributor in Australia: Applied Industrial Technologies Pty Ltd
22 Stamford Road
Oakleigh VIC
Australia 3166
PO Box 1011, Huntingdale VIC 3166
Tel: +613 9567 8700
AH: +61 427 740 927
Fax: +613 9567 8733

1.4 Emergency Telephone Number:

Poisons Information Centre: (24/7) Australia: 13 11 26
For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), 24 hour emergency telephone, call CHEMTREC[®] at 1-800-424-9300 (US, Canada, Puerto Rico); 1-703-527-3887 (elsewhere).

Section 2. Hazard(s) identification

2.1 Classification of the Substance or Mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification, according to the Model Work Health and Safety Regulations, (Safe Work Australia, December 2011) applies. Refer to Section 14 of this Safety Data Sheet for product Dangerous Goods Classification.

Hazard Summary

Health Hazard(s)		
Sensitization - Skin	Category 1	May cause an allergic skin reaction (H317)
STOT-SE	Category 3	May cause drowsiness or dizziness (H336)
Physical Hazard(s)		
Aerosols	Category 1	Pressurised container: May burst if heated (H229) Extremely flammable aerosol (H222)
Environmental Hazard(s)	None	
Specific Hazard(s)	None	
Main symptoms:		May cause irritation of the mouth, throat and gastrointestinal tract with symptoms including upset stomach and diarrhoea. May cause irritation to the respiratory system with symptoms including coughing and sneezing. May cause central nervous system depression seen as dizziness and drowsiness. May cause transient eye irritation with symptoms including lacrimation (tears) and a burning sensation.

2.2 Label Elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for Hazardous Chemicals (Safe Work Australia, December 2011).

Signal Word: DANGER



Hazard Pictograms:

Hazard Statements

Extremely flammable aerosol. (H222) Pressurised container: May burst if heated. (H229) May cause an allergic skin reaction (H317)
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210) Do not spray on an open flame or other ignition source. (P211) Do not pierce or burn, even after use. (P251) Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122°F. (P410+P412) Use only outdoors or in a well-ventilated area. (P271) Avoid breathing mist and vapors. (P261) Wear protective gloves. (P280) Keep out of reach of children. (P102) If medical advice is needed, have product container or label at hand. (P101)

Precautionary Statements :

Supplemental label information:

Contains hydrocarbon propellant and petroleum oil.

Section 3. Composition and information on ingredients

This material is a mixture.

Chemical Name	EC Number	REACH Reg. No.	CAS Number	Percent by Wt.	CLP Classification
Distillates (petroleum), hydrotreated heavy paraffinic	265-157-1	Not Est.	64742-54-7	>70	Asp. 1; H304
Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14-tert-alkyl	931-384-6	01-2119493620-38	Trade Secret	0.1-1	Eye Dam. 1; H318 Acute Tox. 4; H302 Skin Sens. 1; H317
Propane	200-827-9	601-003-00-5	74-98-6	10-15	Flam. Gas 1 : H220, Press. Gas
Butane	203-448-7	601-004-00-0	106-97-8	5-10	Flam. Gas 1 : H220, Press. Gas

Additional information: For full text of H-statements: see SECTION 16.

Section 4. First-aid measures**4.1 Description of First Aid Measures**

General Advice: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Inhalation: If inhaled: Remove person to fresh air and keep comfortable for breathing. (P304 + P340) Call a poison centre if you feel unwell. (P312)

Skin Contact: If on skin: Wash with plenty of water. (P302+P352) If skin irritation or rash occurs: Get medical advice. (P333+313)

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

Ingestion: Do not give anything by mouth to an unconscious person. Do NOT induce vomiting. Immediately call a POISON CENTRE or physician.

4.2 Most Important Symptoms and Effects both Acute and Delayed

Symptoms: May cause allergic skin reaction. May cause nausea, vomiting and diarrhoea. Inhaled vomitus can cause pulmonary injury and death.

4.3 Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician: Do NOT induce vomiting. Provide general supportive measures and treat symptomatically. Keep person under observation. Symptoms may be delayed.

Section 5. Fire-fighting measures

General Fire Hazards: Move containers from fire area if this can be done without risk.

5.1 Extinguishing Media: Use extinguishing measures that are appropriate to local circumstances / surrounding environment.

Suitable extinguishing media: Carbon Dioxide, Dry Chemical, Water Spray and Regular Foam

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special Hazards Arising from the Substance or Mixture: Solvent vapors are heavier than air and may travel to distant, low lying sources of ignition and may ignite and explode. Flame extension: >18 inches, Burnback: > 10 inches Combustion can generate smoke, carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides, mercaptans, sulfides, including hydrogen sulfide, phosphorus oxides and other phosphorus containing compounds and aldehydes.

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Special firefighting procedures: Evacuate area and fight fire from a safe distance. Use water spray to cool adjacent structures and to protect personnel.

5.4 Hazchem Code: 2[Y]

2 Fine Water Spray.

Y There IS danger of violent reaction or explosion; breathing apparatus must be worn and the spillage must be contained.

Section 6. Accidental release measures**6.1 Personal Precautions / Protective Equipment / Emergency Procedures**

For non-emergency personnel: Solvent vapors are heavier than air and may travel to distant, low lying sources of ignition and may ignite and explode. Remove all sources of ignition and take precautionary measures against static discharges. Avoid contact with spilled material. Immediately contact emergency personnel. Keep unnecessary people away.

For emergency responders: Caution should be exercised regarding personnel safety and exposure to the released product. Avoid contact with spilled material. Use caution as spills may be slippery. Ensure adequate ventilation. Use appropriate personal protective equipment.

6.2 Environmental Precautions: Avoid release to the environment. If product is released to the environment, take immediate steps to stop and contain release if it is safe to do so. Isolate hazard area and deny entry. See section 12, Ecological information.

6.3 Methods and materials for containment and cleaning up

Due to the nature of aerosol packaging, large spills and water spills are unlikely.

For small spills: do not touch or walk through spilled material. Stop leak when safe to do so. Cover drains and prevent entry into waterways or sewers. Use clean, tools to collect absorbed material. Clean surface thoroughly to remove residual contamination. Contact appropriate authorities and local experts for further advice.

6.4 Reference to other sections: See Section 8, Exposure Controls/Personal Protection and Section 13, Disposal Considerations.

Section 7. Handling and storage**7.1 Precautions for Safe Handling**

Protective measures: Store locked up. (P405) Read label before use. (P103) Avoid contact with eyes, skin and clothing. Wear protective gloves. Wash contaminated clothing before reuse. (P363) Contaminated work clothing must not be allowed out of the workplace. (P272) Avoid breathing mist or vapors. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not to eat, drink and smoke in work areas, wash hands after use and remove contaminated clothing and protective equipment before entering eating areas. Follow all SDS/label precautions.

Maximum Handling Temperature: 50°C

7.2 Conditions for Safe Storage, Including any Incompatibilities

Storage conditions to avoid: Avoid high temperatures.

Maximum Storage Temperature: 45°C

7.3 Specific End Use(s): End uses are listed in an attached exposure scenario when one is required.

Section 8. Exposure controls and personal protection

8.1 Control Parameters

Occupational exposure limit values

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Component	UK EH40 Workplace Exposure Limits				OSHA	ACGIH
	TWA	TWA	STEL	STEL	PEL	TLV
	ppm	mg/m3	ppm	mg/m3	ppm	ppm
Butane	600	1450	750	1810	Not Est.	1000
Propane	Not Est.	Not Est.	Not Est.	Not Est.	1000	Not Est.

Biological limit values: No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures: Information about recommended monitoring procedures can be obtained from relevant country authorities.

8.2 Exposure Controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels at an acceptable level. Eye wash facilities and emergency shower should be available when handling this product.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye / Face Protection: Wear safety glasses with side shields (or goggles) approved to Australian standards. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Respiratory Protection: None required under normal use conditions. In case of insufficient ventilation, wear suitable respiratory equipment. An air purifying respirator with an appropriate cartridge or canister, such as an organic vapour cartridge may be used in circumstances where airborne concentrations may exceed exposure limits. Consult appropriate Australian standards for recommendations for respirator masks and filters.

Skin Protection

Hand Protection: Users should wear impermeable gloves such as neoprene or nitrile rubber gloves (tested to Australian standards). Glove suitability for a job must be determined by the user for specific use conditions. Any glove information provided is based on published literature and manufacturer data.

The type of gloves to consider for use with this material is: Nitrile: permeation rate: > 480 minutes, thickness: 15 mil

Other Protection: Wear appropriate chemical resistant clothing. Where forearm protection is required, wear gauntlets, gloves with an extended cuff covering part of the forearm. Use of an impervious apron is recommended.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Thermal hazards: Not applicable.

Environmental exposure controls: Minimize contact with soils to prevent runoff into waterways. Prevent entry into waterways. Environmental manager must be informed of all major releases.

Section 9. Physical and chemical properties

9.1 Information Basic Physical and Chemical Properties

Appearance:	Transparent
Physical State:	Liquid
Form:	Non-viscous
Colour:	Greenish-brown
Odour:	Fresh scent
Odour threshold:	Not available
pH:	Not applicable
Melting/Freezing Point:	-22°F / -30°C
Initial Boiling Point/ and Boiling Range:	>400°F / 204°C
Flash Point:	132°C / 270°F
Method:	Cleveland Open Cup
Evaporation Rate (BuAc= 1):	<0.01
Flammability (solid, gas):	Ext. Flam.
Upper/Lower flammability or explosive limits	
Flammability Limit, Lower vol %:	2
Flammability Limit, Upper vol %:	10
Vapour Density (Air=1):	>1 (calc.)
Vapour Pressure, mmHg @23°C:	>1 (calc.)
Relative Density @15.6°C (pounds/gallon)	7.26
Volatile by volume (%):	18
Non-volatile by Volume (%):	82
VOC Content g/l (%):	180 (18)

Solubility(ies)

Solubility (water):	Insoluble
Solubility (other):	Not Established
n-Octanol/Water Partition Coefficient: (log Kow)	>=4
Petroleum Distillates	
Autoignition Temperature:	Not established
Decomposition Temperature:	Not established
Viscosity, cSt @ 40°C:	33.2
cSt @ 100°C:	7.0
Explosive properties:	Not established
Oxidising properties:	Not established

9.2 Other Information

Specific Gravity @15.6°C:	0.871
Chemical family:	Hydrocarbon
Dissociation constant:	Not applicable
Dielectric Strength (KV):	30

Section 10. Stability and reactivity

10.1 Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability: Stable under normal conditions.

10.3 Possibility of Hazardous Reactions: Will not occur.

10.4 Conditions to Avoid: Avoid high temperatures. Do not use or store in unventilated areas.

10.5 Incompatible Materials: Bases, acids, amines and oxidising agents.

10.6 Hazardous Decomposition Products: Does not decompose when used for intended uses. No known hazardous decomposition products.

Section 11. Toxicological information

General information

Exposure to this material may cause adverse effects or damage to the following organs or organ systems: skin, eyes, lungs and central nervous system.

Information on likely routes of exposure

Ingestion: Under normal conditions, ingestion is not expected to be a problem.

Inhalation: Respiratory tract irritation may occur if exposed to mists or heated vapors. May cause coughing and sneezing. Prolonged and repeated inhalation may cause nausea, dizziness and drowsiness. Intentional misuse by deliberately concentrating and inhaling the vapors can be harmful or fatal.

Skin contact: Not anticipated to cause skin irritation. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. May cause allergic contact dermatitis in sensitised individuals. Symptoms may include redness, oedema, drying and cracking of the skin.

Eye contact: May cause transient irritation, lacrimation (tears) and a burning sensation in the eyes.

11.1 Information on Toxicological Effects

Acute Toxicity

Product

Acute Toxicity - Oral: Not classified: conclusive data do not meet classification criteria.

Acute Toxicity - Dermal: Not classified: conclusive data do not meet classification criteria.

Acute Toxicity - Inhalation: Not classified: conclusive data do not meet classification criteria.

Skin Corrosion/Irritation: Classification: Not irritating (Read across); Rabbit.

Serious Eye Damage/Eye Irritation: Classification: Irritating (Read across); Rabbit.

Respiratory sensitisation: Due to partial or complete lack of data the classification is not possible.

Skin sensitisation: May cause sensitisation by skin contact. (Supplier information)

Germ cell mutagenicity: Not classified: conclusive data do not meet classification criteria.

Carcinogenicity: Contains mineral oils which are severely refined and not considered carcinogenic. Demonstrated to contain less than 3% extractables by the IP 346 test. Not classified.

Reproductive toxicity: Not classified: conclusive data do not meet classification criteria.

Developmental effects: Not classified: conclusive data do not meet classification criteria.

Fertility: Not classified: conclusive data do not meet classification criteria.

Specific Target Organ Toxicity - Single Exposure: If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Specific Target organ toxicity - Repeated Exposure: Not classified: conclusive data do not meet classification criteria.

Aspiration Hazard: Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Distillates (petroleum), hydrotreated heavy paraffinic

Acute Toxicity - Oral: LD50 (Rat): > 5,000 mg/kg (Read across) Not classified: conclusive data do not meet classification criteria.

Acute Toxicity - Dermal: LD50 (Rabbit): > 2,000 mg/kg (Read across) Not classified: conclusive data do not meet classification criteria.

Acute Toxicity - Inhalation: LC50 (Rat): >2000 mg/L (Read across) Not classified: conclusive data do not meet classification criteria.

Skin Corrosion/Irritation: Classification: Not irritating (Read across); Rabbit.

Serious Eye Damage/Eye Irritation: Classification: Irritating (Read across); Rabbit

Respiratory sensitisation: Due to partial or complete lack of data the classification is not possible.

Skin sensitisation: May cause sensitization by skin contact. (Supplier information)

Germ cell mutagenicity: Not classified: conclusive data do not meet classification criteria.

Carcinogenicity: Contains mineral oils which are severely refined and not considered carcinogenic. Demonstrated to contain less than 3% extractables by the IP 346 test. Not classified

Reproductive toxicity: >2,000 mg/kg dermal. Not classified: conclusive data do not meet classification criteria.

Developmental effects: > 150 mg/kg/day, Read across from supporting substance Result: NOAEL

Fertility: >893 mg/kg/day, Read across from supporting substance Result: NOAEL

Specific Target Organ Toxicity - Single Exposure: If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Specific Target organ toxicity - Repeated Exposure: Not classified: conclusive data do not meet classification criteria.

Aspiration Hazard: Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl

Acute Toxicity - Oral: LD50 (Rat): Not classified for acute toxicity based on available data

Acute Toxicity - Dermal: LD50 (Rabbit): Not classified for acute toxicity based on available data

Acute Toxicity - Inhalation: LC50 (Rat): Not classified for acute toxicity based on available data

Skin Corrosion/Irritation: Classification: Not irritating (Read across); Rabbit.

Serious Eye Damage/Eye Irritation: Classification: Irritating (Supplier information)

Respiratory sensitisation: No data available

Skin sensitisation: May cause sensitization by skin contact. (Supplier information)

Germ cell mutagenicity: Not classified; has not exhibited mutagenic or genotoxic potential in laboratory tests.

Carcinogenicity: No data available

Reproductive toxicity: Not classified: has not exhibited reproductive toxicity potential in laboratory.

Developmental effects: No data available

Fertility: No data available

Specific Target Organ Toxicity - Single Exposure: No data available

Specific Target organ toxicity - Repeated Exposure: Not classified: conclusive data do not meet classification criteria. Evaluated in a 28-day oral gavage study (OECD 407) in rats. Treatment related effects included microscopic changes in

the adrenal glands of male and female rats and kidneys of male rats at 150 and 500 mg/kg/day. The NOAEL for this study was 150 mg/kg/day.

Aspiration Hazard: Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Propane

Oral: Based on available data, the classification criteria are not met.

Dermal: Based on available data, the classification criteria are not met.

Inhalation: High concentrations may reduce the amount of oxygen available for breathing, especially in confined spaces. No systemic or neurotoxic effects were noted in rats exposed to concentrations of propane as high as 12,000 ppm for 28 days.

Skin Corrosion/Irritation: Contact with evaporating liquid can cause frostbite.

Serious Eye Damage/Eye Irritation: Liquid can cause severe irritation, redness, tearing, blurred vision and possible freeze burns.

Respiratory sensitisation: Due to partial or complete lack of data the classification is not possible.

Skin sensitisation: May cause sensitization by skin contact. (Supplier information)

Germ cell mutagenicity: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Carcinogenicity: Not classified

Reproductive toxicity: No adverse reproductive or developmental effects were observed in rats exposed to propane; no observed adverse effect level = 12,000 ppm.

Developmental effects: Hypoxia (inadequate oxygen) during pregnancy may have adverse effects on the developing fetus.

Fertility - EU category: >893 mg/kg/day, Read across from supporting substance Result: NOAEL

Specific Target Organ Toxicity - Single Exposure: Simple asphyxiant. Inhalation of vapor may produce anesthetic effects and feeling of euphoria leading to death from asphyxiation, depending on concentration and time of exposure.

Specific Target organ toxicity - Repeated Exposure: Prolonged overexposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness, and death from asphyxiation depending on concentration and time of exposure.

Aspiration Hazard: Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Butane

Oral: Based on available data, the classification criteria are not met.

Dermal: Based on available data, the classification criteria are not met.

Inhalation: High concentrations may reduce the amount of oxygen available for breathing, especially in confined spaces. No systemic or neurotoxic effects were noted in rats exposed to concentrations of butane as high as 9,000 ppm for 28 days.

Skin Corrosion/Irritation: Contact with evaporating liquid can cause frostbite.

Serious Eye Damage/Eye Irritation: Liquid can cause severe irritation, redness, tearing, blurred vision, and possible freeze burns.

Respiratory sensitisation: Due to partial or complete lack of data the classification is not possible.

Skin sensitisation: May cause sensitization by skin contact. (Supplier information)

Germ cell mutagenicity: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Carcinogenicity: Contains mineral oils which are severely refined and not considered carcinogenic. Demonstrated to contain less than 3% extractables by the IP 346 test. Not classified

Reproductive toxicity: No adverse reproductive or developmental effects were observed in rats exposed to butane; no observed adverse effect level = 12,000 ppm

Developmental effects: Hypoxia (inadequate oxygen) during pregnancy may have adverse effects on the developing fetus.

Fertility - EU category: >893 mg/kg/day, Read across from supporting substance Result: NOAEL

Specific Target Organ Toxicity - Single Exposure: Inhalation of vapor may produce anesthetic effects and feeling of euphoria leading to death from asphyxiation, depending on concentration and time of exposure.

Specific Target organ toxicity - Repeated Exposure: Prolonged overexposure can cause rapid breathing, headache, dizziness, narcosis, unconsciousness, and death from asphyxiation depending on concentration and time of exposure.

Aspiration Hazard: Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Section 12. Ecological information

12.1 Toxicity

Product

Fish: Not toxic to fish but may coat gill structures resulting in suffocation if spilled in shallow, running water.

Toxicity to Terrestrial Plants: If applied to leaves, may kill grasses and small plants by interfering with transpiration and respiration.

Toxicity to Above-Ground Organisms: May be moderately toxic to amphibians by preventing dermal respiration. May cause gastrointestinal distress in birds and mammals through ingestion.

Distillates (petroleum), hydrotreated heavy paraffinic

Fish: LC50 Pimephales promelas > 100 mg/l, 96 hours; Not toxic to fish but may coat gill structures resulting in suffocation if spilled in shallow, running water.

Aquatic Invertebrates: EC50 Daphnia magna > 10000 mg/l, 48 hours; NOEL Daphnia magna 10 mg/l, 21 days

Toxicity to Aquatic Plants: NOEL Pseudokirchnerella subcapitata > 100 mg/l, 72 hours

Toxicity to soil dwelling organisms: No data available

Sediment Toxicity: No data available

Toxicity to Terrestrial Plants: If applied to leaves, may kill grasses and small plants by interfering with transpiration and respiration.

Toxicity to Above-Ground Organisms: May be moderately toxic to amphibians by preventing dermal respiration. May cause gastrointestinal distress in birds and mammals through ingestion.

Toxicity to microorganisms: No data available

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentoxide, and salted by amines, C12-14- tert-alkyl

Fish: LC50 (Rainbow Trout, 4 Days): 24 mg/l; NOEC (Rainbow Trout, 4 Days): 3.2 mg/l; LC50 (Fathead Minnow, 4 Days): 8.5 mg/l

Aquatic Invertebrates: EC50 (Water flea (Daphnia magna), 2 d): 91.4 mg/l, EC50 (Water flea (Daphnia magna), 21 d): 0.66 mg/l, NOEC (Water flea (Daphnia magna), 21 d): 0.12 mg/l
Toxicity to Aquatic Plants: EC50 (Green algae (selenastrum capricomutum), 4 Days): 6.4 mg/l; NOEC (Green algae (selenastrum capricomutum), 4 Days): 1.7 mg/l
Toxicity to soil dwelling organisms: No data available
Sediment Toxicity: No data available
Toxicity to Terrestrial Plants: No data available
Toxicity to Above-Ground Organisms: No data available
Toxicity to microorganisms: No data available

Propane

Fish: LC50 (Fish, 96 h): 49.9 mg/l
Aquatic Invertebrates: EC50 (Water flea (Daphnia magna), 48 h): 27.1 mg/l
Toxicity to Aquatic Plants: EC50 (Alga, 72 h): 11.9 mg/l

Butane

Fish: LC 50 (Various, 96 h): 147.54 mg/l (QSAR) Remarks: QSAR Key study
Aquatic Invertebrates: LC50 (Water flea (Daphnia magna), 48 h): 14.2 mg/l
Toxicity to Aquatic Plants: LC50 (Alga, 72 h): 7.7 mg/l

12.2 Persistence and Degradability

Product

Biodegradation: Not readily biodegradable. Biodegradation is possible with 100 to 120 days in aerobic environments at temperatures above 21 °C.

BOD/COD Ratio: No data available

Hydrolysis Half-life No data available

12.3 Bioaccumulative Potential: Contains constituents with the potential to bioaccumulate in aquatic organisms.

12.4 Mobility in soil: Not established

12.5 Results of PBT and vPvB Assessment: Does not contain any substances that are assessed to be a PBT or a vPvB

12.6 Other Adverse Effects: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected.

Distillates (petroleum), hydrotreated heavy paraffinic

Biodegradation: Not readily biodegradable. Biodegradation is possible with 100 to 120 days in aerobic environments at temperatures above 21 °C.

BOD/COD Ratio: No data available

Hydrolysis Half-life No data available

12.3 Bioaccumulative Potential: Contains constituents with the potential to bioaccumulate in aquatic organisms.

Bioconcentration Factor (BCF): No data available

Partition Coefficient n-octanol / water (log Kow): >= 4

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB Assessment: Not considered to be persistent, bioaccumulative nor toxic (PBT) or very bioaccumulative (vPvB).

12.6 Other Adverse Effects: No data available

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl

Biodegradation: Dissolved organic carbon 3.6% (28 d, Inherent Sludge), Carbon dioxide generation 7.4% (28 d, OECD TG 301 B)

BOD/COD Ratio: No data available

Hydrolysis Half-life No data available

12.3 Bioaccumulative Potential: Contains constituents with the potential to bioaccumulate in aquatic organisms.

Bioconcentration Factor (BCF): No data available

Partition Coefficient n-octanol / water (log Kow): No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB Assessment: Not considered to be persistent, bioaccumulative nor toxic (PBT) or very bioaccumulative (vPvB).

12.6 Other Adverse Effects: No data available

Propane

12.5 Results of PBT and vPvB Assessment: Not persistent, bioaccumulative nor toxic or very bioaccumulative.

12.6 Other Adverse Effects: Greenhouse gas not covered by 842/2006/EC. When discharged in large quantities may contribute to the greenhouse effect.

Global warming potential: 3

Butane

12.5 Results of PBT and vPvB Assessment: Not persistent, bioaccumulative nor toxic or very bioaccumulative.

12.6 Other Adverse Effects: Greenhouse gas not covered by 842/2006/EC. When discharged in large quantities may contribute to the greenhouse effect.

Global warming potential: 4

Section 13. Disposal considerations

13.1 Waste Treatment Methods

13.1.1 Product / Packaging Disposal: Dispose of contents and container in accordance with applicable regulations. (P501)

Product Wastes from Residues/ Unused Product: Recycle waste or used oils whenever possible in accordance with national and regional provisions. Incineration in an approved facility is recommended unless directed otherwise by appropriate authority.

Treatment, storage, transportation and disposal must be in accordance with applicable National, State and Territorial regulations.

Contaminated Packaging: Empty remaining contents. Since emptied containers retain product residue, follow label warnings even after container is emptied. Container packaging may exhibit hazards. Do not cut, weld, grind, puncture or incinerate empty containers. Empty containers should be taken for local recycling, recovery or waste disposal.

13.1.2 Waste treatment – relevant information: Recycle waste or used oils whenever possible in accordance with National, State and Territorial provisions. Incineration in an approved facility is recommended unless directed otherwise by appropriate authority.

13.1.3 Sewage disposal – relevant information: Waste should not be disposed of by release to sewers.

13.1.4 Other disposal recommendations: Final decisions on the appropriate waste management method, in line with National, State and Territorial provisions and possible adaptation to local conditions, remains the responsibility of the waste treatment operator.

Section 14. Transport information

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. For transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed.

ADR / RID (road / rail)

14.3. Transport hazard class(es)

UN No.: UN 1950

Proper Shipping Name: UN 1950 AEROSOLS

Classification Code: 5F

LQ (ADR 2015): 1 L

Tunnel Restriction Code: D

Hazchem Code: 2[Y]

ICAO (air)

14.3. Transport hazard class(es): 2.1

UN-No.: UN1950

Shipping Name: Aerosols, Flammable

IATA/IMDG (sea)

14.3. Transport hazard class(es): 2.1

UN-No.: UN1950

Proper Shipping Name: Aerosols, Flammable

14.5. Environmental hazards: Marine Pollutant: No

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code: Freight as packaged goods not in bulk. Not intended to be transported in bulk.

Section 15. Regulatory information

15.1 Safety, Health and Environmental Regulations/Legislation for the Substance or Mixture

Substances that deplete the ozone layer None

Persistent Organic Pollutants: None

Australia

This material is considered hazardous according to Australia Model Work Health and Safety Regulations.

This material is not regulated according to Australian Dangerous Goods Code.

Australian Inventory of Chemical Substances (AICS) Listing: The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

New Zealand

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation.

HSNO Hazard Classes: 6.4A, 6.1E, 6.5B, 2.1.1A

HSNO Approval Number HSR002515 - Aerosols (Flammable) Group Standard

HSNO Approval Number HSR001009 - LPG (liquefied petroleum gas)

Classified as a Dangerous Good according to NZS5433:2007 Transport of Dangerous Goods on Land.

NZIoC (New Zealand Inventory of Chemicals): All components are listed on the NZIoC inventory or are exempt.

Section 16. Other information

Prepared by: U.S. Corrosion Technologies, LLC Technical Services Department

This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

National Fire Protection Association (704) Health: 1 Flammability: 4 Reactivity: 0 Other:

National Fire Protection Association (30B): Category 3 Aerosol

Full text of H-statements: see SECTION 3.

H220	Extremely flammable gas
H304	May be fatal if swallowed and enters airways
H318	Causes serious eye damage
H302	Harmful if swallowed
H317	May cause an allergic skin reaction

Disclaimer: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damage incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical and application of such products is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the sole responsibility of the user to comply with all applicable Laws and Regulations. Any questions with regards to information contained herein should be referred to U. S. Corrosion Technologies, LLC (972) 271-7361.