U. S. Corrosion Technologies, LLC
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CorrosionX® Aerosol EU Safety Data Sheet

Section 1. Identification of the substance/mixture and the company/ undertaking

1.1 Product Identifier

Product Name: **CorrosionX Aerosol**
Product Code: 90101, 90102
Synonyms: Not applicable
SDS Number: Not applicable
Issue Date: 4/12/2017
Version Number: 1.0
Revision Date: Not applicable

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

NZ Distributor:
Patch Rubber Tyre & Tube
21 Aetna Place, Henderson
Auckland. Ph 09 837 2481

1.4 Emergency Telephone Number:

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).
UK – National Poisons Information Service - NHS Direct England & Wales 0845 46 47/NHS 24 Scotland 08454 24 24 24 (UK only)
Spain – Servicio De InformacionToxicologica - +34 917 68 98 00
Portugal – Instituto Nacional de Emergência Médica (INEM) - 808 250 143 (Portugal only), +351 21 330 3284
Netherlands – National Poisons Information Centre (NVIC) 030-274 8888
Norway – Norwegian Poison Information Centre (NIPH) 22 59 13 00
Sweden – Swedish Poisons Information Centre - 010-456 6700 (International) 112 (National)
Finland – HUS Poison Information Centre - 09 87 10023
France – Institut National De Recherche Et De Securite (INRS) +33 1 40 44 30 00
Italy – Istituto Superiore di Sanità (ISS) +39 0649906140 and +39 0649902064

Section 2. Hazards 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 applies.

Classification according to Regulation (EC) No 1272/2008 [CLP] as amended

Hazard Summary

Health Hazard(s)		
Skin Sensitizer	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	Extremely flammable aerosol (H222) Pressurised container: May burst if heated (H229)
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

Labelling according to Regulation (EC) No 1272/2008 [CLP] as amended

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) May cause drowsiness or dizziness. (H336)

Precautionary Statements: 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. Avoid breathing mist and vapors. Store locked up. (P405) Keep out of reach of children. (P102) If medical advice is needed, have product container or label at hand. (P101) If swallowed: Immediately call a POISON CENTER or physician (P301 + P310) Do NOT induce vomiting. (P331) Dispose of contents and container in accordance with applicable regulations. (P501)

Supplemental label information: Contains petroleum oil.
2.3 Other hazards Danger of bursting (explosion) when heated.

Section 3. Composition / information on ingredients

3.2 Mixtures

Chemical Name	EC Number	REACH Reg. No.	CAS Number	Percent by Wt.	CLP Classification
Distillates (petroleum), hydrotreated heavy paraffinic	265-157-1	Not established	64742-54-7	65-75	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: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
Skin Contact: Remove contaminated clothing. If on skin: (P302) Wash with plenty of water. (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 CENTER 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 exposed 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: Alcohol, Alcohol based solutions, any other media not listed above.
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. Hydrogen sulfide and alkyl mercaptans and sulfides may also be released.
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.

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 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
For small spills: Do not touch or walk through spilled material. Prevent entry into waterways or sewers. Absorb spilled material and use clean, non-sparking tools to collect absorbed material. Clean surface thoroughly to remove residual contamination.
Due to the nature of aerosol packaging, large spills and water spills are unlikely.
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: Read label before use. (P103) Avoid contact with eyes, skin and clothing. Wear protective gloves (P280) Wash hands thoroughly after handling (P264) Wash contaminated clothing before reuse. (P363) Contaminated work clothing must not be allowed out of the workplace. (P272) Avoid breathing mist or spray. (P261) 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 / personal protection

8.1 Control Parameters
Occupational exposure limit values: The following constituent is the only constituent of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

	UK EH40 Workplace Exposure Limits				OSHA	ACGIH
Component	**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.
Derived no-effect level (DNEL):

Material	**Type**	**Route**	**Value**	**Form**
Distillates (petroleum), hydrotreated Heavy paraffinic (CAS 64742-54-7)	Not applicable	Inhalation	5.4 mg/m3	Aerosol

Predicted no effect concentrations (PNECs): Not Established
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 below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to 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 EU standard EN166. 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 vapor cartridge may be used in circumstances where airborne concentrations may exceed exposure limits. CEN EN-136, EN-140 and EN-405 provide recommendations for respirator masks. CEN EN-149 and 143 provide recommendations for filters.
Skin Protection
Hand Protection: Users should wear impermeable gloves such as neoprene or nitrile rubber gloves (tested to CEN EN-374). 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.

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.
Flammability Limit, Lower vol %:	1.4
Flammability Limit, Upper vol %:	12.5
Vapour Density (Air=1):	>1
Vapour Pressure, mmHg @23°C:	>1
Relative Density @15.6°C (pounds/gallon)	7.26
Volatile by volume (%):	18
VOC Content g/l (%):	180 (18)
Non-volatile by Volume (%):	82
Solubility(ies)	
Solubility (water):	Insoluble
Solubility (other):	Not Established
Partition Coefficient: (n-Octanol/Water)	Not established
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. Symptoms may include redness, oedema, drying and cracking of the skin.
Eye contact: May cause transient blurred vision and lacrimation (tears).
11.1 Information on Toxicological Effects
Acute Toxicity
Product

Oral: LD50 (Rat): Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
Dermal: LD50 (Rabbit): Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
Inhalation: LC50 (Rat): Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
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: 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: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
Developmental effects: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
Fertility - EU category: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
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: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
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

Oral: LD50 (Rat): > 5,000 mg/kg (Read across) Not classified
Dermal: LD50 (Rabbit): > 2,000 mg/kg (Read across) Not classified
Inhalation: LC50 (Rat): >2000 mg/L (Read across) Not classified
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: 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: >2,000 mg/kg dermal. Due to partial or complete lack of data the classification is not possible.
Developmental effects: > 150 mg/kg/day, Read across from supporting substance Result: NOAEL
Fertility - EU category: >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: Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
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

Oral: LD50 (Rat): Not classified for acute toxicity based on available data
Dermal: LD50 (Rabbit): Not classified for acute toxicity based on available data
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: Not classified for acute toxicity based on available data
Respiratory sensitisation: No data available
Skin sensitisation: May cause sensitization by skin contact. (Supplier information)
Germ cell mutagenicity: This material has not exhibited mutagenic or genotoxic potential in laboratory tests.
Carcinogenicity: No data available
Reproductive toxicity: Based on available data this product is not expected to be classified a reproductive hazard.
Developmental effects: No data available
Fertility - EU category: No data available

Specific Target Organ Toxicity - Single Exposure: No data available
Specific Target organ toxicity - Repeated Exposure: 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. Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.
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 pentaoxide, 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 / Butane

Toxicity: Petroleum gases will readily evaporate from the surface and would not be expected to have significant adverse effects in the aquatic environment. Classification: No classified hazards.

Persistence and Degradability: Not applicable to gases and gas mixtures. Hydrocarbon gases do not remain in solution long enough for biodegradation to be a significant loss process.

Bioaccumulative Potential: Not expected as having the potential to bioaccumulate.

Mobility in Soil: Due to the extreme volatility of petroleum gases, air is the only environmental compartment in which they will be found. In air, these hydrocarbons undergo photodegradation by reaction with hydroxyl radicals with half-lives ranging from 3.2 days for n-butane to 7 days for propane.

Other Adverse Effects: None anticipated.

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: Not persistent, bioaccumulative nor toxic or very bioaccumulative.

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

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): >= 3, log Pow (DSD), >= 4, log Kow (CLP)

12.4 Mobility in soil: No data available

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

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 persistent, bioaccumulative nor toxic or very bioaccumulative.

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
Product Wastes from Residues/ Unused Product: The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances (2014/955/EU). Final decisions on the appropriate waste management method, in line with regional, national and European legislation, and possible adaptation to local conditions, remains the responsibility of the waste treatment operator.
EU waste code (Appendix A Consolidated European Waste Catalogue (EWC 2002)): 16 05 04*: gases in pressure containers (including halons) containing dangerous substances
Contaminated Packaging: Empty remaining contents. Empty containers should be taken for local recycling, recovery or waste disposal. Empty containers may contain residues. Do not cut, weld, grind, puncture or incinerate empty containers.
EU waste code 15 01 04 metallic packaging, 15 01 01 paper and cardboard packaging. Dispose using dual system.
13.1.2 Waste treatment – relevant information: Not applicable
13.1.3 Sewage disposal – relevant information: Waste should not be disposed of by release to sewers.
13.1.4 Other disposal recommendations: Refer to the EIGA code of practice (Doc.30 "Disposal of Gases", downloadable at http://www.eiga.org) for more guidance on suitable disposal methods. Dispose of container via supplier only.

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. Review classification requirements before shipping materials at elevated temperatures.

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
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: Freighted 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
Authorizations and/or restrictions on use: This product does not contain substances subject to authorizations (Regulation (EC) No. 1907/2006 (REAcH), Annex XIV). This product does not contain substances subject to restriction ((Regulation (EC) No. 1907/2006 (REAcH), Annex XIV).
Substances that deplete the ozone layer None
Persistent Organic Pollutants: None
Inventory Listing: EINECCS/ELINCS All components are listed
Directive 2010/75/EU (VOC) 18,0 %
15.2 Chemical Safety Assessment: A Chemical Safety Assessment is not provided for mixtures and has not been carried out.

Section 16. Other information

Prepared by: U.S. Corrosion Technologies, LLC Technical Services Department
Revision Date: 5/10/2017 **Supersedes Date:** Not applicable
Revision Indicator: v 1.0
This safety data sheet complies with the requirements of Regulation (EC) No, 1907/2006, as amended by Regulation (EU) No. 453/2010.
National Fire Protection Association (704) Health: 1 Flammability: 4 Reactivity: 0 Other:
NFPA 30 B – 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.