



SAFETY DATA SHEET

This Safety Data Sheet Complies With the Requirements of: 29 CFR 1910.1200

Revision Date: 06-Apr-2015

Version 1

1. IDENTIFICATION

Product Identifier

Product Name CORR-SHIELD CS-1135

Other Means of Identification

Product Code CS-1135

Recommended Use of the Chemical and Restrictions on Use

Recommended Use Surfactant, Corrosion Inhibitor.

Details of the Supplier of the Safety Data Sheet

Aegis Chemical Solutions
Corporate Headquarters
4560 Kendrick Plaza Dr., Ste 190
Houston, TX 77032
Telephone: 281-258-4095

Emergency Telephone Number

Company Phone Number 281-258-4095
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This product is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Specific target organ toxicity (single exposure)	Category 1

Label Elements

Emergency Overview

Danger

Hazard Statements

Harmful if swallowed
Causes damage to organs



Color Colorless

Physical State Liquid

Odor Alcohol

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not breathe dust/fume/gas/mist/vapors/spray
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth
 In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)

Not applicable

Other Information

Unknown acute toxicity 13% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	Weight-%
Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt)	55566-30-8	4
Methyl alcohol	67-56-1	3
Ethylene glycol	107-21-1	1

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of First Aid Measures

General Advice	If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
Skin Contact	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is not required. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. Call a physician. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products.
Ingestion	Rinse mouth. Drink plenty of water. If symptoms persist, call a physician. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to Physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use. Dry chemical. Carbon dioxide (CO₂). Water spray (fog). Alcohol resistant foam.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising From the Chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency procedures

Personal Precautions Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

Environmental Precautions

Environmental Precautions Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Dam up. Take precautionary measures against static discharges.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

Conditions for Safe Storage, Including any Incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

Incompatible Materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control Parameters**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt) 55566-30-8	TWA: 2 mg/m ³	-	-
Methyl alcohol 67-56-1	STEL: 250 ppm TWA: 200 ppm S*	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³
Ethylene glycol 107-21-1	Ceiling: 100 mg/m ³ aerosol only	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³	-

NIOSH IDLH *Immediately Dangerous to Life or Health*

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate Engineering Controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual Protection Measures, Such as Personal Protective Equipment

Eye/Face Protection Tight sealing safety goggles.

Skin and Body Protection No special technical protective measures are necessary. Wear protective gloves and protective clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on Basic Physical and Chemical Properties**

Physical State	Liquid	Color	Colorless
Odor	Alcohol		
Odor Threshold	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.5	
Melting Point/Freezing Point	No information available	
Boiling Point/Boiling Range	> 93 °C / 199 °F	
Flash Point	> 93 °C / > 199 °F	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper Flammability Limit:	No information available	
Lower Flammability Limit:	No information available	
Vapor Pressure	32.8 mmHg	
Vapor Density	No information available	
Specific Gravity	0.945	
Water Solubility	Soluble in water	
Solubility in Other Solvents	No information available	
Partition Coefficient	No information available	
Autoignition Temperature	No information available	
Decomposition Temperature	No information available	
Kinematic Viscosity	No information available	
Dynamic Viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	
<u>Other Information</u>		
Softening Point	No information available	
Molecular Weight	No information available	
VOC Content (%)	No information available	
Density	No information available	
Bulk Density	No information available	

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Heat, flames and sparks.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information	Information given is based on available data of the components and the toxicology of similar products. The product has not been tested.
Inhalation	Inhalation of dusts/mists in high concentration may cause irritation of respiratory system.
Eye Contact	Contact with eyes may cause irritation.

Skin Contact Prolonged contact may cause redness and irritation.

Ingestion Harmful if swallowed. May cause blindness if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt) 55566-30-8	= 248 mg/kg (Rat)	-	-
Methyl alcohol 67-56-1	= 6200 mg/kg (Rat)	= 15800 mg/kg (Rabbit)	= 22500 ppm (Rat) 8 h = 64000 ppm (Rat) 4 h
Ethylene glycol 107-21-1	4000 - 10200 mg/kg (Rat)	= 10600 mg/kg (Rat) = 9530 µL/kg (Rabbit)	-

Information on Toxicological Effects

Symptoms No information available.

Delayed and Immediate Effects as Well as Chronic Effects From Short and Long-term Exposure

Sensitization No information available.

Germ Cell Mutagenicity Not known to cause heritable genetic damage.

Carcinogenicity No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt) 55566-30-8	-	Group 3	-	-

IARC (International Agency for Research on Cancer)

Not classifiable as a human carcinogen

Reproductive Toxicity This product does not contain any known or suspected reproductive hazards.

Teratogenicity Not known to cause birth defects or have a deleterious effect on a developing fetus.

STOT - Single Exposure Optic nerve. Liver. spleen. Central nervous system.

STOT - Repeated Exposure No information available.

Target Organ Effects Central nervous system, Eyes, Gastrointestinal tract (GI), Respiratory system, Skin.

Aspiration Hazard No information available.

Numerical Measures of Toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1831 mg/kg

ATEmix (dermal) 8671 mg/kg

ATEmix (inhalation-dust/mist) 14.48 mg/l

ATEmix (inhalation-vapor) > 20 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

17% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/Aquatic Plants	Fish	Crustacea
Methyl alcohol 67-56-1	-	28200: 96 h Pimephales promelas mg/L LC50 flow-through 13500 - 17600: 96 h Lepomis macrochirus mg/L LC50 flow-through 18 - 20: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 19500 - 20700: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-

Ethylene glycol 107-21-1	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 14 - 18: 96 h Oncorhynchus mykiss mL/L LC50 static 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static	46300: 48 h Daphnia magna mg/L EC50
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Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition Coefficient
Methyl alcohol 67-56-1	-0.77
Ethylene glycol 107-21-1	-1.93

Other Adverse Effects

No information available.

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Do not reuse container. Empty drums should be completely drained properly bunged and promptly returned to a drum reconditioner, or properly disposed.

US EPA Waste Number

U154

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Methyl alcohol 67-56-1	-	Included in waste stream: F039	-	U154

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste Status
Methyl alcohol 67-56-1	Toxic Ignitable

14. TRANSPORT INFORMATION

DOT

Not regulated by U.S. DOT

DOT Description

Not regulated by U.S. DOT

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	SARA 313 - Threshold Values %
Methyl alcohol - 67-56-1	1.0
Ethylene glycol - 107-21-1	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Methyl alcohol 67-56-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Ethylene glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name Methyl alcohol - 67-56-1	California Proposition 65 Developmental
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U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Phosphonium, tetrakis(hydroxymethyl)-, sulfate (2:1) (salt) 55566-30-8	X	-	-
Methyl alcohol 67-56-1	X	X	X
Ethylene glycol 107-21-1	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
HMIS	Health Hazards 2	Flammability 1	Physical Hazards 0	Personal Protection X

Revision Date: 06-Apr-2015

Revision Note:

This SDS was updated to comply with the 2012 OSHA Hazard Communication Standard.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet