

UNITED STEEL WORKS, INC

12255 44TH STREET N.
CLEARWATER, FL. 33762
PHONE 727-572-6669
FAX 727-573-2859

MATERIAL SAFETY DATA SHEETS

MASTER LIST
(COMPILED JULY 2008)

UNITED STEEL WORKS, INC. 12255 44TH STREET N. CLEARWATER, FL. 33762
PHONE - 727-572-6669 FAX - 727-573-2859

MSDS INVENTORY OF HAZARDOUS MATERIALS

A

ACETYLENE
ALUMINUM ALLOY
ANTI SPATTER AEROSOL
ARGON

AIRGAS INC.
ALERIS ROLLED PRODUCTS
RADNOR
AIRGAS INC.

B

BRIGHT GALV. SPRAY

RADNOR

C

CARBON ALLOY STEELS
CARBON DIOXIDE
CHERRY BOMB - LIQUID HAND CLEANER
COLD GALVANIZING SPRAY - (SPRAYON ZINC-RICH)
COLD GALVANIZING SPRAY - (ZINC-IT INSTANT COLD)
COOLUBE 2210EP
CRC -3-36 MULTI PURPOSE LUBRICANT

TBSC
AIRGAS INC.
ZEP INC.
SPRAYON
THE SHERWIN WILLIAMS COMPANY
UNIST INC.
CRC INDUSTRIES

E

EPOXY - SIMPSON ET SERIES

SIMPSON STRONG TIE

G

GLASS CAPSULE ANCHOR - ULTRABOND
GRAY OXIDE PRIMER - SPRAY
GRINDING WHEEL - ALUMINUM OXIDE RESIN BONDED

ADHESIVES TECHNOLOGY GROUP
SEYMOUR OF SYCAMORE
RADNOR

H

HIT HY 150
HYDRAN OILS

HILTI
FINA

L

LUBEMATIC

WELD-AID PRODUCTS

M

MARSON EPL GREASE
MARSON LIPLX ET GREASE
METAL DECKING (GALVANIZED, GALVANNEALED SHEET)
MINERAL SPIRITS
MULTI-PURPOSE ATF

FINA
FINA
USS
HUNT REFINING
FINA

N

NAPA PREMIUM STARTING FLUID
NOZZLE GEL

NAPA
KCI, INC.

O

OXYGEN

AIRGAS INC.

P

PAINTSTIK

LA-CO INDUSTRIES

Q

QUIK-ROK

AMERISTAR

R

RAPID TAP
RED OXIDE PRIMER
RED OXIDE PRIMER - SPRAY

RELTON CORPORATION
SUMTER COATINGS
SEYMOUR OF SYCAMORE

S

SILVER GALV. GALVANIZING COMPOUND - (SPRAYON)
SOLUBLE OIL XD
STAINLESS STEEL

THE SHERWIN WILLIAMS COMPANY
FINA
OUTO KUMPU

U

UNIVERSAL PLUS MOTOR OILS

FINA

W

WD-40 AEROSOL
WELDING ELECTRODE 6011
WELDING ELECTRODE 7018
WELDING ELECTRODE 7024 EASY ARC
WELDING ELECTRODE FLEETWELD 22
WELDING WIRE E71T-1 FLUX CORED
WELDING WIRE ER 70 SERIES

WD-40 COMPANY
RADNOR
RADNOR
EASY ARC
LINCOLN ELECTRIC
RADNOR
RADNOR

Z

ZEP 45 NC LIQUID - LUBRICANT
ZINC COATED STEEL (GALVANIZING)

ZEP INC.
INDUSTRIAL GALVANIZERS AMERICA.INC.

A
ACETYLENE

Acetylene

Section 1. Chemical product and company identification

Acetylene

AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

Synthetic/Analytical chemistry.

Ethyne; Ethine; Narcylen; C₂H₂; Acetylen; UN 1001; Vinylene
001001

4/8/2008.

1-866-734-3438

Section 2. Hazards identification

Gas.

WARNING!

FLAMMABLE GAS.

MAY CAUSE FLASH FIRE.

MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

CONTENTS UNDER PRESSURE.

Keep away from heat, sparks and flame. Do not puncture or incinerate container. May cause target organ damage, based on animal data. Use only with adequate ventilation. Keep container closed.

Contact with rapidly expanding gases can cause frostbite.

May cause damage to the following organs: upper respiratory tract, central nervous system (CNS).

Inhalation

Contact with rapidly expanding gas may cause burns or frostbite.

Contact with rapidly expanding gas may cause burns or frostbite.

Acts as a simple asphyxiant.

Ingestion is not a normal route of exposure for gases

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

Section 3. Composition, Information on Ingredients

Acetylene

74-86-2

100

NIOSH REL (United States, 12/2001).

CEIL: 2662 mg/m³

Section 4. First aid measures

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Try to warm up the frozen tissues and seek medical attention.

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

As this product is a gas, refer to the inhalation section.

Section 5. Fire fighting measures

Flammable.

304.85°C (580.7°F)

Closed cup: -18.15°C (-0.7°F).

Lower: 2.5% Upper: 82%

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and oxidizing materials.

In case of fire, use water spray (fog), foam or dry chemical.

In case of fire, allow gas to burn if flow cannot be shut off immediately. Apply water from a safe distance to cool container and protect surrounding area. If involved in fire, shut off flow immediately if it can be done without risk.

Contains gas under pressure. Flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Use only with adequate ventilation. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. High pressure gas. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Keep container closed. Keep away from heat, sparks and flame. To avoid fire, eliminate ignition sources. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Segregate from oxidizing materials. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure controls/personal protection

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

The applicable standards are (US) 29 CFR 1910.134 and (Canada) Z94.4-93

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.

acetylene

NIOSH REL (United States, 12/2001).
CEIL: 2662 mg/m³

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

26.04 g/mole

C₂H₂

Sublimation temperature: -81.8°C (-115.2°F)

35.3°C (95.5°F)

635 (psig)

0.9 (Air = 1)

14.7058

0.068

Acetylene

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ACETY

Section 10. Stability and reactivity

The product may undergo hazardous decomposition, condensation or polymerization, react violently with water to emit toxic gases or become self-reactive under conditions of shock or increase in temperature or pressure.

Extremely reactive or incompatible with oxidizing agents

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

May cause damage to the following organs: upper respiratory tract, central nervous system (CNS).

No specific information is available in our database regarding the other toxic effects of this material to humans.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Section 12. Ecological information

Not available.

Products of degradation: carbon oxides (CO, CO₂) and water.

Not available.

No known significant effects or critical hazards.

Not available.

Section 13. Disposal considerations

Section 14. Transport information

	UN1001	ACETYLENE, DISSOLVED	2.1	Not applicable (gas).		Limited quantity Yes. Packaging instruction Passenger aircraft Quantity limitation: Forbidden. Cargo aircraft Quantity limitation: 15 kg

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ACETY

Acetylene						
	UN1001	ACETYLENE, DISSOLVED	2.1	Not applicable (gas).		<u>Explosive Limit and Limited Quantity Index</u> 0 <u>Passenger Carrying Ship Index</u> 75 <u>Passenger Carrying Road or Rail Index</u> Forbidden <u>Special provisions</u> 38, 42
	UN1001	ACETYLENE, DISSOLVED	2.1	Not applicable (gas).		-

Section 15. Regulatory information

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: acetylene

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
acetylene: Fire hazard, reactive, Sudden release of pressure, Immediate (acute) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: acetylene

Clean Air Act (CAA) 112 regulated flammable substances: acetylene

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Connecticut Carcinogen Reporting: This material is not listed.

Connecticut Hazardous Material Survey: This material is not listed.

Florida substances: This material is not listed.

Illinois Chemical Safety Act: This material is not listed.

Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.

Louisiana Reporting: This material is not listed.

Louisiana Spill: This material is not listed.

Massachusetts Spill: This material is not listed.

Massachusetts Substances: This material is listed.

Michigan Critical Material: This material is not listed.

Minnesota Hazardous Substances: This material is not listed.

New Jersey Hazardous Substances: This material is listed.

New Jersey Spill: This material is not listed.

New Jersey Toxic Catastrophe Prevention Act: This material is not listed.

New York Acutely Hazardous Substances: This material is not listed.

New York Toxic Chemical Release Reporting: This material is not listed.

Pennsylvania RTK Hazardous Substances: This material is listed.

Rhode Island Hazardous Substances: This material is not listed.

Acetylene

A
ACETY

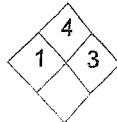
Class A: Compressed gas.
Class B-1: Flammable gas.
Class F: Dangerously reactive material.
CEPA Toxic substances: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Section 16. Other information

FLAMMABLE GAS.
MAY CAUSE FLASH FIRE.
MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.
CONTENTS UNDER PRESSURE.

Class A: Compressed gas.
Class B-1: Flammable gas.
Class F: Dangerously reactive material.

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To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

To: Denise Matthews Page 2 of 4

2007-10-11 15:21:43 (GMT)

12707210242 From: Thomas Watson

A
ALUM



ALUMINUM ALLOY

MATERIAL SAFETY DATA SHEET

SECTION I Material Description

DATE: 11/04/1985 REVISION DATE: 09/01/2004 MSDS 002

MANUFACTURER: Aleris Rolled Products
25825 Science Park Drive, Ste 400 TELEPHONE NUMBER: 216-910-3400
Beachwood, OH 44122-7392

TRADE NAME: Aluminum Coil, Flat Sheet, or Plate

PRODUCT CLASS: Aluminum Alloy

IDENTIFICATION: N/A

MANUFACTURERS CODE: 3005, 5456, 5086, 5154, 5454, 5754, 5050, 5052, 5005, 5083 and 5061
(See Commercial Sales Note)

SECTION II Ingredients

Aluminum	>92.10	7429-9-5	5	10
Magnesium	<05.50	7439-95-4	10	-
Chromium	<00.35	7440-47-3	0.5	-
Manganese	<01.00	7439-96-5	5 (ceiling)	5 (ceiling)

Contains no additional alloys above 1%. Consult manufacturer for specific properties if additional information is required.

SECTION III Physical Data

MELTING RANGE: 950-1215°F VAPOR DENSITY: Unknown

EVAPORATING RATE: Unknown PERCENT VOLATILE BY VOLUME: Unknown

APPEARANCE AND ODOR: Dull or Silver Metallic color, no odor.

A
ALUM



ALUMINUM ALLOY MATERIAL SAFETY DATA SHEET

SECTION IV Fire and Explosion Hazard Data

FLASH POINT: Unknown

LEL: Unknown

EXTINGUISHING MEDIA: Use extinguishing agent appropriate for combustible materials in area. Dry chemical recommended.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Molten aluminum, in the presence of water, is very unstable. Do not use water to extinguish where there is a possibility of molten aluminum being present. Finely divided aluminum will form explosive mixtures in air.

SECTION V Health Hazard Data

EFFECTS OF OVEREXPOSURE: High exposures may produce irritation of the eyes and respiratory tract. If exposures for aluminum oxide are kept below the TLV's the alloy components should not present any health risk. Welding or cutting aluminum may generate ozone. Overexposure to ozone can cause mucous membrane irritation and pulmonary changes including irritation, congestion and edema.

EMERGENCY AND FIRST AID PROCEDURES: Eye contact: wash eyes with large volumes of water for 15 minutes. If irritation persists seek medical attention. Skin contact: wash with soap and water. Inhalation: remove to fresh air and initiate appropriate respiratory support. Consult a physician. Ingestion: extremely unlikely.

CARCINOGENICITY: This material is not considered to be carcinogenic as currently listed by the NTP, IARC, or OSHA.

SECTION VI Reactivity Data

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: See section IX.

MATERIALS TO AVOID: Aluminum fines are attacked by strong acids and alkalis and by some halogenated organic compounds especially at elevated temperatures. Operations generating aluminum fines may produce hydrogen gas when exposed to moisture. See NFPA guideline #491M for specific incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None

A
ALUM



ALUMINUM ALLOY MATERIAL SAFETY DATA SHEET

SECTION VII Spill or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No special procedure.

WASTE DISPOSAL METHOD: For disposal of this material as a waste, act in accordance with all applicable federal, state and local waste management regulations. Recycling of aluminum scrap is encouraged by the industry.

SECTION VIII Special Protection Information

RESPIRATORY PROTECTION: If TLV's exceeded, use NIOSH approved dust or fume respirator depending on contaminants and concentrations present.

VENTILATION: Local exhausts if TLV's exceeded.

PROTECTIVE GLOVES: Recommended while handling sheet or coil.

EYE PROTECTION: Safety glasses or goggles depending on prevailing hazard.

OTHER PROTECTIVE EQUIPMENT: None

SECTION IX Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None under normal conditions of use and storage.

OTHER PRECAUTIONS: Halogen acids and sodium hydroxide in contact with aluminum may generate explosive mixtures of hydrogen.

Do not touch cast aluminum metal or heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. If metal is hot and touched, burns can result.

The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infrared radiation and ultra-violet radiation.

Information herein is given in good faith as authoritative and valid; however, no warranty, express or implied, can be made.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.

Commercial Sales Note: Check with your Commonwealth Aluminum Sales Associate for specific Alloy availability

To: Denise Matthews Page 2 of 4

2007-10-11 15:02:12 (GMT)

12707210242 From: Thomas Watson

A
ALUM

ALUMINUM ALLOY

MATERIAL SAFETY DATA SHEET

SECTION I Material Description

DATE: 11/04/1985 REVISION DATE: 09/01/2004 MSDS 001

MANUFACTURER: Aleris Rolled Products
25825 Science Park Drive, Ste 400 TELEPHONE NUMBER: (866) 266-2586
Beachwood, OH 44122-7392

TRADE NAME: Aluminum Coil or Flat Sheet

PRODUCT CLASS: Aluminum Alloy

IDENTIFICATION: N/A

MANUFACTURERS CODE: 1100, 1145, 1350, 3003, 3004, 3104, 3105, 3204, 3304, 7021, 7072, 8111,
and BH22 (See Commercial Sales Note)

SECTION II Ingredients

Aluminum	>92.10	7429-9-5	5	10
Magnesium	<02.05	7439-95-4	10	-
Zinc	<05.85	7440-66-6	5	-
Manganese	<01.50	7439-96-5	5 (ceiling)	5 (ceiling)

Contains no additional alloys above 1 %. Consult manufacturer for specific properties if additional information is required.

SECTION III Physical Data

MELTING RANGE: 950-1150°F VAPOR DENSITY: Unknown

EVAPORATING RATE: Unknown PERCENT VOLATILE BY VOLUME: Unknown

APPEARANCE AND ODOR: Dull or Silver Metallic color, no odor.

To: Denise Matthews Page 3 of 4

2007-10-11 15:02:12 (GMT)

12707210242 From: Thomas Watson

A
ALUM

ALUMINUM ALLOY MATERIAL SAFETY DATA SHEET

SECTION IV Fire and Explosion Hazard Data

FLASH POINT: Unknown

LEL: Unknown

EXTINGUISHING MEDIA: Use extinguishing agent appropriate for combustible materials in area. Dry chemical recommended.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Molten aluminum, in the presence of water, is very unstable. Do not use water to extinguish where there is a possibility of molten aluminum being present. Finely divided aluminum will form explosive mixtures in air.

SECTION V Health Hazard Data

EFFECTS OF OVEREXPOSURE: High exposures may produce irritation of the eyes and respiratory tract. If exposures for aluminum oxide are kept below the TLVs the alloy components should not present any health risk. Welding or cutting aluminum may generate ozone. Overexposure to ozone can cause mucous membrane irritation and pulmonary changes including irritation, congestion and edema.

EMERGENCY AND FIRST AID PROCEDURES: Eye contact: wash eyes with large volumes of water for 15 minutes. If irritation persists seek medical attention. Skin contact: wash with soap and water. Inhalation: remove to fresh air and initiate appropriate respiratory support. Consult a physician. Ingestion: extremely unlikely.

CARCINOGENICITY: This material is not considered to be carcinogenic as currently listed by the NTP, IARC, or OSHA.

SECTION VI Reactivity Data

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: See section IX.

MATERIALS TO AVOID: Aluminum fines are attacked by strong acids and alkalies and by some halogenated organic compounds especially at elevated temperatures. Operations generating aluminum fines may produce hydrogen gas when exposed to moisture. See NFPA guideline #491M for specific incompatible materials.

HAZARDOUS DECOMPOSITION PRODUCTS: None

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ALUM



ALUMINUM ALLOY MATERIAL SAFETY DATA SHEET

SECTION VII Spill or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: No special procedure.

WASTE DISPOSAL METHOD: For disposal of this material as a waste, act in accordance with all applicable federal, state and local waste management regulations. Recycling of aluminum scrap is encouraged by the industry.

SECTION VIII Special Protection Information

RESPIRATORY PROTECTION: If TLV's exceeded, use NIOSH approved dust or fume respirator depending on contaminants and concentrations present.

VENTILATION: Local exhausts if TLV's exceeded.

PROTECTIVE GLOVES: Recommended while handling sheet or coil.

EYE PROTECTION: Safety glasses or goggles depending on prevailing hazard.

OTHER PROTECTIVE EQUIPMENT: None

SECTION IX Special Precautions

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: None under normal conditions of use and storage.

OTHER PRECAUTIONS: Halogen acids and sodium hydroxide in contact with aluminum may generate explosive mixtures of hydrogen.

Do not touch cast aluminum metal or heated aluminum product without knowing metal temperature. Aluminum experiences no color change during heating. If metal is hot and touched, burns can result.

The welding of aluminum alloys may generate carbon monoxide, carbon dioxide, ozone, nitrogen oxides, infrared radiation and ultra-violet radiation.

Information herein is given in good faith as authoritative and valid; however, no warranty, express or implied, can be made.

The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.

Commercial Sales Note: Check with your Commonwealth Aluminum Sales Associate for specific Alloy availability.

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MATERIAL SAFETY DATA SHEET
May be used to comply with
OSHA's Hazard Communication
Standard, 29CFR 1910.2100.

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health
Administration (Non-Mandatory Form)

001- SOLVENT BASED ANTI-SPATTER AEROSOL (RADNOR PART# 64000100, 64000102)

RADNOR
 259 NORTH RADNOR-CHESTER ROAD SUITE 100
 RADNOR, PA. 19087-5283

EMERGENCY NUMBER: 866-734-3438
INFORMATION : 866-734-3438
DATE PREPARED: JANUARY 1, 2008

SECTION II-HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous components	OSHA PEL	ACGIH TLV	%	<input type="checkbox"/>
*METHYLENE CHLORIDE CAS#75-09-2	25ppm(8hrTWA)	50ppm(8hrTWA)	73-84	<input type="checkbox"/>
CARBON DIOXIDE CAS#124-38-9	5000PPM	5000ppm	17	<input type="checkbox"/>

*SEE ATTACHED FOR SARA TITLE III NOTIFICATION AND ADDITIONAL
HEALTH DATA.

SECTION III-PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 104F Specific Gravity (H2O=1): 1.32
Vapor Pressure: 390 (mmHG) Melting Point: N/A
Vapor Density: 2.9 Evaporation Rate: 14.50
(Butyl Acetate=1)

Volatile Organic Compounds 0.0 lbs./gallon , 0 grams/liter

Solubility in Water: % by weight, 1.3

Appearance and Odor: Clear, colorless liquid with a chloroform-like odor.

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits	LEL	UEL <input type="checkbox"/>
None to boiling	% by volume	N/A	N/A <input type="checkbox"/>

Extinguishing Media: Carbon dioxide, dry chemical or foam.

Special Firefighting Procedures: Pressure-demand, self-contained
protection

Storage

should be provided for protection.

containers exposed to fire should be kept
cool with water.

Unusual Fire and Explosion Hazards: At high temperatures, over-pressurization of containers can result.

A
ANTI

0001-ANTI-SPATTER (AEROSOL)

PAGE 2 OF 50

SECTION V-REACTIVITY DATA

Stability: Unstable Conditions to Avoid
Avoid high pressure in
aluminum systems.
Stable X Open flames & electrical
arcs.

Incompatibility(Materials to Avoid)
Avoid contact with oxygen, nitrogen, peroxide, oxidizers and
reactive metals(i.e. aluminum, potassium, sodium, etc.)

Hazardous Decomposition or Byproducts:
Combustion may yield CO,CO2,phosgene and/or HCL.

Hazardous May Occur: Condition to Avoid
Polymerization N/A
Will Not Occur:X

SECTION VI-HEALTH HAZARD DATA

Routes of Entry: Inhalation: Yes Skin: Yes Ingestion: Yes

Health Hazards(Acute and Chronic)
INHALATION: In confined or poorly ventilated areas, vapors can
readily accumulate and can cause unconsciousness and death.
Minimal anesthetic or narcotic effects may be seen in 500-1000ppm
range. Progressively higher levels over 1000ppm can cause dizziness
, drunkenness, concentrations as low as 10000ppm can cause unconscious-
ness and death. These high levels may also cause cardiac arrhythmias.
Excessive exposure may cause irritation to upper respiratory tract.
Excessive exposure may cause carboxyhemoglobinemia.
Carcinogenicity:**YES-NTP YES-IARC MONOGRAPHS NO-OSHA REGULATED
Signs and Symptoms of Exposure: Light-headedness & nausea.
Irritating to the eyes and the skin.

Medical Conditions
Generally Aggravated by Exposure: Prolonged contact with
high concentrations can lead to serious kidney and liver
damage.

Emergency First Aid Procedures: Eyes-flush with water for
15 minutes. Skin-wash area with soap & water. Ingestion-
drink water, DO NOT INDUCE VOMITING. Inhalation-remove to fresh air.
If breathing has stopped, start CPR.

*** MUTAGENICITY (EFFECTS ON GENETIC MATERIAL) SEE PAGE 5.

SECTION VII-PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material Is Release or Spilled
Spills should be soaked up with absorbent. Area should then be flushed with water. All rinsate should be containerized & labeled. Spills on areas that are not on pavement can be handled by removing the affected soils.

Waste Disposal Method:

The materials resulting from clean-up operations may be hazardous wastes, and therefore subject to local, state, & federal regulations.

Precautions to Be Taken in Handling and Storage:

Label all containers. Store containers in a cool, dry, well ventilated area.

Other Precautions:

N/A

SECTION VIII-CONTROL MEASURES

Respiratory Protection (specify Type)

None, during normal use.

Ventilation: Local Exhaust-Sufficient to maintain TLV.

Special-N/A

Mechanical (General)-N/A

Other-N/A

Protective Gloves-polyfluorinated polyethylene suggested.

Eye Protection-face shield and goggles should be worn.

Other Protective Clothing or Equipment :N/A

Work/Hygienic Practices :N/A

DOT SHIPPING: This product is classified as CONSUMER COMMODITY ORM-D.

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001-ANTI-SPATTER (AEROSOL)

PAGE 4 OF 5

SARA TITLE III NOTIFICATION/INFORMATION

- *All chemical compounds marked with an asterisk(*) are toxic
- chemicals subject to the reporting requirements of Section 313
- of Title III of the Super Fund Amendments and Reauthorization
- Act (SARA) of 1986 and 40 CFR Part 372. You must notify each
- person to whom this mixture or trade name product is sold.
- This statement must remain a part of this Material Safety Data
- Sheet. This statement must not be detached. Any copy or
- redistribution of this Material Safety Data Sheet shall
- include this statement.

CALIFORNIA PROPOSITION 65 INFORMATION

WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF

CALIFORNIA TO CAUSE CANCER.

NEW JERSEY RIGHT TO KNOW INFORMATION

(5 MOST PREDOMINANT INGREDIENTS/HAZARDOUS & NON-HAZARDOUS)

METHYLENE CHLORIDE	CAS# 75-09-2
CARBON DIOXIDE	CAS#124-38-9
SOYA LECITHIN	CAS#8002-43-5

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM

HEALTH-2
FLAMMABILITY-1
REACTIVITY-1

HAZARD RATING

4-SEVERE HAZARD
3-SERIOUS HAZARD
2-MODERATE HAZARD
1-SLIGHT HAZARD
0-MINIMAL HAZARD

NATIONAL FIRE PROTECTION ASSOCIATION

HEALTH-2
FLAMMABILITY-1
REACTIVITY-1
OTHER-NONE

4-SEVERE HAZARD
3-SERIOUS HAZARD
2-MODERATE HAZARD
1-SLIGHT HAZARD
0-MINIMAL HAZARD

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Argon

Section 1. Chemical product and company identification

Argon
AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253
Synthetic/Analytical chemistry.
argon, compressed
001004
3/27/2008.

1-866-734-3438

Section 2. Hazards identification

Gas. [COLORLESS, ODORLESS INERT GAS]

WARNING!

CONTENTS UNDER PRESSURE.

Do not puncture or incinerate container.

Contact with rapidly expanding gases or liquids can cause frostbite.

Inhalation

Contact with rapidly expanding gas may cause burns or frostbite.

Contact with rapidly expanding gas may cause burns or frostbite.

Acts as a simple asphyxiant.

Ingestion is not a normal route of exposure for gases

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

Acute or chronic respiratory conditions may be aggravated by overexposure to this gas.

See toxicological information (section 11)

Section 3. Composition, Information on Ingredients

Argon

7440-37-1

100

Simple asphyxiant.

Section 4. First aid measures

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Try to warm up the frozen tissues and seek medical attention.

Argon

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

As this product is a gas, refer to the inhalation section.

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Section 5. Fire fighting measures

Non-flammable.

No specific data.

Use an extinguishing agent suitable for the surrounding fire.

Apply water from a safe distance to cool container and protect surrounding area. If involved in fire, shut off flow immediately if it can be done without risk.

Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Immediately contact emergency personnel. Stop leak if without risk. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

High pressure gas. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Never allow any unprotected part of the body to touch uninsulated pipes or vessels that contain cryogenic liquids. Prevent entrapment of liquid in closed systems or piping without pressure relief devices. Some materials may become brittle at low temperatures and will easily fracture.

Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure controls/personal protection

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

When working with cryogenic liquids, wear a full face shield.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Argon

The applicable standards are (US) 29 CFR 1910.134 and (Canada) Z94.4-93
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Insulated gloves suitable for low temperatures
Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.

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Simple asphyxiant.

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

39.95 g/mole
Ar
-185.7°C (-302.3°F)
-189.2°C (-308.6°F)
-122.4°C (-188.3°F)
1.38 (Air = 1)
9.70874
0.103

Section 10. Stability and reactivity

The product is stable.
Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

No specific information is available in our database regarding the other toxic effects of this material to humans.

No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

Section 12. Ecological information

Not available.

Not available.
No known significant effects or critical hazards.
Not available.

Section 13. Disposal considerations

Section 14. Transport information

	UN1006	ARGON, COMPRESSED	2.2	Not applicable (gas).		Limited quantity Yes.
	UN1951	Argon, refrigerated liquid				Packaging instruction Passenger aircraft Quantity limitation: 75 kg Cargo aircraft Quantity limitation: 150 kg
	UN1006	ARGON, COMPRESSED	2.2	Not applicable (gas).		Explosive Limit and Limited Quantity Index 0.125 Passenger Carrying Road or Rail Index 75 Special provisions 42
	UN1951	Argon, refrigerated liquid				
	UN1006	ARGON, COMPRESSED	2.2	Not applicable (gas).		-
	UN1951	Argon, refrigerated liquid				

Section 15. Regulatory information

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: argon

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

argon: Sudden release of pressure

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

- Connecticut Carcinogen Reporting: This material is not listed.
- Connecticut Hazardous Material Survey: This material is not listed.
- Florida substances: This material is not listed.
- Illinois Chemical Safety Act: This material is not listed.
- Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.
- Louisiana Reporting: This material is not listed.
- Louisiana Spill: This material is not listed.
- Massachusetts Spill: This material is not listed.
- Massachusetts Substances: This material is listed.
- Michigan Critical Material: This material is not listed.
- Minnesota Hazardous Substances: This material is not listed.
- New Jersey Hazardous Substances: This material is listed.
- New Jersey Spill: This material is not listed.
- New Jersey Toxic Catastrophe Prevention Act: This material is not listed.
- New York Acutely Hazardous Substances: This material is not listed.
- New York Toxic Chemical Release Reporting: This material is not listed.
- Pennsylvania RTK Hazardous Substances: This material is listed.
- Rhode Island Hazardous Substances: This material is not listed.

- Class A: Compressed gas.
- CEPA Toxic substances: This material is not listed.
- Canadian ARET: This material is not listed.
- Canadian NPRI: This material is not listed.
- Alberta Designated Substances: This material is not listed.
- Ontario Designated Substances: This material is not listed.
- Quebec Designated Substances: This material is not listed.

Section 16. Other information

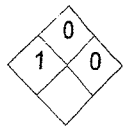
CONTENTS UNDER PRESSURE.

Class A: Compressed gas.

	1
	0
	0

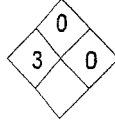
liquid:

	3
	0
Reactivity	0
Personal protection	x



liquid:

Argon



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To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

MATERIAL SAFETY DATA SHEET FOR RADNOR® BRIGHT GALV SPRAY

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : RADNOR® BRIGHT GALV
 PRODUCT USE : PROTECTIVE COATING
 PART NUMBER(S) : 64000131
 ADDRESS : RADNOR WELDING PRODUCTS
 259 N. RADNOR-CHESTER ROAD SUITE 100
 RADNOR, PA 19087-5283
 EMERGENCY TELEPHONE : 866-734-3438
 PREPARATION DATE : MARCH 01, 2006
 OSHA REGULATORY STATUS : NOT REGULATED
 WHMIS CLASSIFICATION : B5, D2A, A

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SECTION 2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS	OSHA PEL	ACGIH TLV	LD50 SPECIES/ROUTE	LC50 SPECIES/ROUTE	%WT
ZINC DUST	7440-66-6	5 mg/m ³	5 mg/m ³	N/Av	N/Av	10 - 30%
LIQUEFIED PETROLEUM GAS	68476-85-7	1000 ppm	1000 ppm	N/Av	57.42% v/v (mice)	10 - 30%
METHYL ETHYL KETONE	78-93-3	200 ppm	200 ppm	>5,000 mg/kg rabbit/dermal	11,700 rat / 4 hrs	10 - 30%
STODDARD SOLVENT	8052-41-3	500 ppm	100 ppm	>5 g/k rat/oral	> 5,500 rat / 4 hrs	10 - 30%
URETHANE POLYMER	TRADE SECRET	N/E	N/E	N/Av	N/Av	10 - 30%
ALUMINUM	7429-90-5	5 mg/m ³	5 mg/m ³	N/Av	N/Av	1 - 5%
XYLENE	1330-20-7	100 ppm	100 ppm	12,180 mg/kg rabbit/dermal	6700 ppm / 4 h (rat)	0.1 - 1%

SECTION 3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CONTENTS EXTREMELY FLAMMABLE AND UNDER PRESSURE. STORE BELOW 120°F (49°C), OUT OF SUNLIGHT AND AWAY FROM HEAT SOURCES. DO NOT PUNCTURE OR INCINERATE. AVOID CONTACT WITH SKIN AND EYES. VAPOR HARMFUL. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

EYE: Liquid or vapors may cause redness, burning, tearing, swelling and/or pain.
 SKIN: Frequent or prolonged contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).
 INGESTION: Due to being an aerosol, product does not lend itself to ingestion. Should ingestion occur, it may cause irritation to membranes of the mouth, throat and gastrointestinal tract, resulting in vomiting and/or cramps.
 INHALATION: Prolonged or repeated overexposure is anesthetic. May cause irritation of the respiratory tract, or acute nervous system depression characterized by headache, dizziness, staggering gait, or confusion.
 EFFECTS OF ACUTE EXPOSURE: N/Av
 EFFECTS OF CHRONIC EXPOSURE: N/ Av
 OTHER IMPORTANT HAZARDS: N/Av
 SUGGESTED HMIS RATING: HEALTH | 1 | FLAMMABILITY | 4 | REACTIVITY | 0 | PERSONAL PROTECTION | B |

SECTION 4. FIRST AID MEASURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist or if unconscious.
 INGESTION: Unlikely due to being in aerosol form. Should actual ingestion occur, do not induce vomiting! Drink a glass of water or milk to dilute. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.
 EYE CONTACT: Immediately flush with plenty of clear water for at least 15 minutes. Make sure to flush under the eyelids. Consult a physician for definitive treatment
 SKIN CONTACT: Remove with soap and water. Continue flushing with water for several minutes. Use skin cream to counter resulting dryness. Consult a physician if irritation continues or if large skin area is affected.

SECTION 5. FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY: Heat, sparks, flame, red hot metal.

MEANS OF EXTINCTION: For warehouse and storage conditions, use NFPA Class B extinguishers (CO₂, dry chemical or universal aqueous film forming foam).

SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool fire exposed aerosol containers for containers can rupture violently from heat developed pressure.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Contents extremely flammable and under pressure. In addition, when liquid or vapor comes into contact with flames or red hot metal, products of combustion will be created. Firemen should wear self-^B~~BRIGHT~~ contained breathing apparatus.

FLASH POINT / DETERMINATION: Propellant <0°F (<-18°C)

UPPER FLAMMABLE LIMIT: 9.5%

LOWER FLAMMABLE LIMIT: 1.8%

AUTO-IGNITION TEMPERATURE: N/Av

HAZARDOUS COMBUSTION PRODUCTS: N/Av

EXPLOSION DATA - SENSITIVITY TO MECHANICAL IMPACT: N/Av

EXPLOSION DATA - SENSITIVITY TO STATIC DISCHARGE: N/Av

SECTION 6. ACCIDENTAL RELEASE MEASURES

LEAK / SPILL RESPONSE: Product is an aerosol, therefore spills and leaks are unlikely. In case of rupture, released content should be contained as any other solvent spill. Spills from aerosol cans are unlikely and are generally of small volume. Large spills are therefore not normally considered a problem. In case of actual rupture, avoid breathing vapors and ventilate area well. Remove all sources of ignition and use non-sparking equipment. Soak up material with inert absorbent and place in safety containers for proper disposal.

SPECIAL INSTRUCTIONS: Aerosol products represent a limited hazard and will not spill or leak unless ruptured. In case of rupture contents are generally evacuated from the can rapidly. Area should be ventilated immediately and continuous ventilation provided until all fumes and vapors have been removed. Aerosol cans should never be incinerated or burned. See Section 13 for disposal considerations.

SECTION 7. HANDLING AND STORAGE

HANDLING PROCEDURES / EQUIPMENT: Avoid prolonged or repeated skin contact. Avoid breathing vapors.

STORAGE REQUIREMENTS: Store in area below 120°F (49°C). Do not incinerate (burn) containers. Assure can is in a secure place to prevent knocking over and accidental rupture. Always replace overcap when not in use. For store of pallet quantities, compliance with ANSI/NFPA 30B is recommended.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE PROTECTION: Safety glasses with side shields are recommended as a minimum for any type of industrial chemical handling. Where eye contact could occur, chemical splash proof goggles are recommended.

SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. When prolonged or repeated contact could occur, use protective clothing such as Sol-Vex® gloves or other clothing impervious to the ingredient listed in Section 2.

ENGINEERING CONTROLS: General ventilation (typically 10 air changes for hour) should be used. Ventilation rates should be matched to conditions. Local exhaust ventilation or an enclosed handling system, may be needed to control air contamination below that of the lowest TLV/PEL rated ingredient from Section 2.

EXPOSURE GUIDELINE LEVELS: Since this product is a mixture, an OSHA or ACGIH exposure value is not available. In determination of any exposure procedures, protection or testing use the lowest rated ingredient in Section 2.

EFFECTIVE: MARCH 01, 2006

(C:\BRIGHT GALV.06) PAGE 2 OF 4

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	: Liquid / Gas
ODOR AND APPEARANCE	: Silver coating with a paint-like odor
ODOR THRESHOLD	: N/Av
SPECIFIC GRAVITY (H ₂ O=1)	: Below 1.0
VAPOUR PRESSURE (mm HG)	: N/Av
VAPOUR DENSITY (AIR=1)	: Above 1.0
EVAPORATION RATE (BA=1)	: N/Av
BOILING POINT (°F)	: Propellant <0°F (<-18°C)
FREEZING POINT (°F)	: N/Av
pH	: N/Av
COEFFICIENT OF WATER/OIL DISTRIBUTION	: N/Av
DENSITY	: N/Av
SOLUBILITY IN WATER	: Negligible
% VOLATILE BY VOLUME	: Negligible
VOC'S	: N/Av

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SECTION 10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Heat, sparks, flame, red hot metal.

MATERIALS TO AVOID (INCOMPATIBILITIES): Strong oxidizing materials.

CONDITIONS OF REACTIVITY: N/Av

HAZARDOUS DECOMPOSITION BYPRODUCTS: Oxides of carbon.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

LD50: N/Av

LC50: N/Av

ROUTES OF ENTRY: INHALATION[Y] EYE CONTACT[Y] SKIN CONTACT[Y] SKIN ABSORPTION[Y] INGESTION[N]

EXPOSURE LIMITS: Since this product is a mixture, an OSHA or ACGIH exposure value is not available. In determination of any exposure procedures, protection or testing use the lowest rated ingredient in Section 2.

IRRITANCY OF PRODUCT: N/Av

SENSITIZATION TO PRODUCT / MEDICAL CONDITIONS AGGRAVATED: N/Av

CARCINOGENICITY: None of the ingredients in this product are listed with IARC, NTP or OSHA as being carcinogenic.

TERATOGENICITY / MUTAGENICITY / REPRODUCTIVE TOXICITY: N/Av

TOXICOLOGICAL DATA: N/Av

SECTION 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS: This product has not been tested for environmental effects.

IMPORTANT ENVIRONMENTAL CHARACTERISTICS: N/Av

AQUATIC TOXICITY: N/Av

SECTION 13. DISPOSAL CONSIDERATIONS

An aerosol container that does not contain a significant amount of liquid would meet the definition of scrap metal (40 CFR 261.1(c)(6)), and would be exempt from RCRA regulation under 40 CFR 261.6(a)(3)(iv) if it is to be recycled. If containers are to be disposed of (not recycled) it must be managed under all applicable RCRA and state regulations.

EFFECTIVE: MARCH 01, 2006

(C: BRIGHT GALV.06) PAGE 3 OF 4

SECTION 14. TRANSPORTATION INFORMATION

SPECIAL SHIPPING INFORMATION : N/Av

DOT HM-181 SHIPPING INFORMATION

PROPER SHIPPING NAME : Consumer Commodity
HAZARD CLASS OR DIVISION : ORM-D
UN NUMBER : 1950
PACKAGING GROUP : none
LABEL(S) REQUIRED : none

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TDG SHIPPING INFORMATION

TDG SHIPPING NAME : Aerosols, Flammable Limited Quantity
TDG CLASSIFICATION : 2.1
UN NUMBER : 1950
PACKING GROUP : none
LABEL(S) REQUIRED : none
NAERG : 126
EMERGENCY TELEPHONE NUMBER : (613) 996-6666

INTERNATIONAL TRANSPORT INFORMATION

PROPER SHIPPING NAME : Aerosol, Limited Quantity
CLASS OR DIVISION : 2
SUBSIDIARY RISK : none
HAZARDOUS LABEL(S) : none
PACKAGING GROUP : none
UN OR ID NUMBER : UN 1950

SECTION 15. REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT (TSCA): The product on this MSDS, or all of its components, is listed under TSCA.
SARA TITLE III, SECTION 313: The following ingredients are subject to the reporting requirements of section 313 of Title III of the Superfund and Reauthorization Act of 1986 and 40 CFR Part 372: Zinc Dust (25%), Methyl Ethyl Ketone (20%), Aluminum (3%), Xylene (<1%)
CLEAN AIR ACT (CAA): The following ingredients appear on the List of Hazardous Air Pollutants (HAP – 42 USC 7412, Title I, Part A, p112): Methyl Ethyl Ketone, Xylene
CLEAN WATER ACT (CWA):The following ingredients appear on the CWA List of Hazardous Substances (40 CFR 116.4): Zinc Dust, Xylene
CALIFORNIA PROPOSITION 65: The following ingredients appear on the Proposition 65 list(s): None
CANADIAN WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS): This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.
DOMESTIC SUBSTANCES LIST (DSL): The product on this MSDS, or all of its components, is included in the DSL.
NEW JERSEY RIGHT TO KNOW (TITLE 34:5A-1): Zinc Dust (CAS 7440-66-6), Liquefied Petroleum Gas (CAS 68476-85-7), Methyl Ethyl Ketone (CAS 78-93-3), Stoddard Solvent (CAS 8052-41-3), Urethane Polymer (Trade Secret).

SECTION 16. OTHER INFORMATION

N/E Not Established
N/Av Not Available
N/Ap Not Applicable
IARC International Agency for Research on Cancer
ACGIH American Conference of Governmental Industrial Hygienists
NIOSH National Institute for Occupational Health and Safety
TLV-TWA Threshold Limit Values, Time Weighted Average
NAERG North American Emergency Response Guidebook
WHMIS Workplace Hazardous Materials Information System

The information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond our control. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made.

Material Safety Data Sheet

907 B 20th Street Tampa, FL 33605-6303	Issue Date Jan 2004	Identification Carbon & Alloy
Trade Name (Common Name or Synonym) Carbon, Alloy, Steels		Form Bar, Sheet, Plate, Tubing, Structural
Chemical Name Steel		

I. INGREDIENTS

Material or Component	CAS Number	% Weight	Exposure Limits	
			OSHA PEL (mg/m ³)	ACGIH TLV (mg/m ³)
Base Metal				
Iron (Fe)	7439-89-6	Balance	10 (Fe ₂ O ₃ Fume)	5.0 (Fe ₂ O ₃ Fume)
Alloying Elements				
Carbon (C)	7440-44-0		None Listed	None Listed
Chromium (Cr)	7440-47-3	0.01 - 1.5	1.0 as chrome	0.5 as chrome
Copper (Cu)	7440-50-8	0.01 - 12	0.2 as copper; 1.0 as dust	0.2 as fume; 1.0 as dust
Lead (Pb)	7439-92-1	0.04 - 0.7	0.05 as fume & dust	0.15 as dust and fume
Manganese (Mn)	7439-96-5	0.15 - 0.35	5 as manganese	5 as dust; 1 as fume
Molybdenum (Mo)	7439-98-7	0.05 - 2.0	15 as insoluble compds	10 as insoluble compds
Nickel (Ni)	7440-02-0	0.01 - 1.10	1.0 as Nickel	1.0 as Nickel
Phosphorous (P)	7723-14-0	0.01 - 10	0.1 as Phosphorous	0.1 as Phosphorous
Silicon (Si)	7440-21-3	0.15 Max	None Listed	10 total dust
Sulfur (S)	7704-34-9	0.15 - 2.20	13 sulfur dioxide	5 sulfur dioxide
Tungsten (W)	7440-33-7	0.001 - 0.35	None Listed	5 insoluble compds
Vanadium (V)	7440-62-2	0 - 18	0.5 dust; 0.1 fume	0.05 dust and fume
Zinc (Zn) coating	1314-13-2	0.01 - 1.0	5.0 as fume	5.0 as fume
		10 Max		

Note: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

II. PHYSICAL DATA

Material is (At Normal Conditions): <input type="checkbox"/> Liquid <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Other				Appearance and Odor Gray-Black With Metallic Lustre — Odorless	
pH = NA	Melting Point Approx 2750°F Boiling Point NA °F	Specific Gravity (H ₂ O = 1) — 7 Solubility in water (% by weight) — NA	Vapor Pressure (mm Hg at 20°C) NA		

III. PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection OSHA approved dust/mist/fume respirator should be used during grinding or burning if OSHA PEL or TLV is exceeded.	Hands, Arms, and Body Use appropriate protective clothing such as welders aprons & gloves when welding or burning. Check local codes.
Eyes and Face Safety glasses should always be worn when grinding or cutting; face shields should be worn when welding or burning.	Other Clothing and Equipment As required

IV. EMERGENCY MEDICAL PROCEDURES

Ingestion:	Remove to fresh air; if condition continues, consult physician.
Skin Contact:	Immediately flush well with running water to remove particulate; get medical attention.
Eye Contact:	If irritation develops, remove clothing and wash well with soap and water. If condition persists, seek medical attention.
Ingestion:	If significant amounts of metal are ingested, seek medical attention.

V. HEALTH/SAFETY INFORMATION

HEALTH

Steel products in the natural state do not present an inhalation, ingestion, or contact health hazard. However, operations such as welding, burning, sawing, brazing, grinding, and possibly machining, which results in elevating the temperature of the product to or above its melting point or results in the generation of airborne particulates may present hazards. The above operations should be performed in well ventilated areas. The major exposure hazard is inhalation.

Effects of overexposure are as follows:

Acute: Excessive inhalation of metallic fumes and dusts may result in irritation of eyes, nose, and throat. Also high concentrations of fumes and dusts of iron-oxide, manganese, copper, zinc, & lead may result in metal fume fever. Typical symptoms consist of a metallic taste in the mouth, dryness and irritation of the throat, chills and fever, and usually last from 12 to 48 hours.

Chronic: Chronic and prolonged inhalation of high concentrations of fumes or dust of the following elements may lead to the conditions listed opposite the element:

Iron (iron-oxide) - Pulmonary effects, siderosis.

Manganese - Bronchitis, pneumonitis, lack of coordination.

Chromium - Various forms of dermatitis, inflammation and/or ulceration of upper respiratory tract, and possibly cancer of nasal passages and lungs. Based on available information, there does not appear to be any evidence that exposure to welding fume induces human cancer.

Nickel - SAME AS CHROMIUM

Copper - Pulmonary effects.

Vanadium - No reported cases of exposure to vanadium.

Molybdenum - Pain in joints, hands, knees and feet.

Tungsten - Some evidence of pulmonary involvement such as cough.

Lead - Prolonged exposures can cause behavioral changes, kidney damage, periphery neuropathy characterized by decreased hand-grip strength and adverse reproductive effects.

Zinc - None reported.

Occupational Exposure Limits

See Section I.

FIRE AND EXPLOSION

Flash Point	NA °F	Auto Ignition Temperature	NA °F	Flammable Limits in Air	Extinguishing Media
				Lower NA %	NA
				Upper NA %	
Fire and Explosion Hazards				None	Extinguishing Media Not to be Used
					NA

REACTIVITY

Stability	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Incompatibility (Materials to Avoid)
		Reacts with strong acids to form hydrogen gas.
Conditions to Avoid	Keep Area Well Ventilated	
Non-ventilated areas when cutting, welding, burning, or brazing; avoid generation of airborne dusts and fumes.		
Hazardous Decomposition Products		
Metallic oxides.		

VI. ENVIRONMENTAL

Spill or Leak Procedures	Special Precautions: Use good housekeeping practices to prevent accumulation of dust and to keep airborne dust to a minimum.
Waste Disposal Method	Dust, etc. — follow federal, state, and local regulations regarding disposal.

VII. ADDITIONAL INFORMATION

Disclaimer:
The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any representation or warranty, expressed or implied regarding the accuracy or correctness. Conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

Carbon Dioxide

Section 1. Chemical product and company identification

Carbon Dioxide

AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

Synthetic/Analytical chemistry.

anhydride carbonique (french); carbonic acid gas; carbonic anhydride; dry ice;
kohlenstaure (german); dry ice (solid)
001013

4/7/2008.

1-866-734-3438

C
CAR. DIOX

Section 2. Hazards identification

Gas.

WARNING!

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CAN CAUSE TARGET ORGAN DAMAGE.
CONTENTS UNDER PRESSURE.

Do not puncture or incinerate container. Avoid contact with eyes, skin and clothing. Can cause target organ damage. Wash thoroughly after handling. Keep container closed. Avoid breathing gas. Use with adequate ventilation.

Contact with rapidly expanding gas, liquid, or solid can cause frostbite.

Causes damage to the following organs: eyes.

May cause damage to the following organs: lungs, cardiovascular system, skin, central nervous system (CNS), eye, lens or cornea.

Inhalation Dermal Eyes

Moderately irritating to eyes. Contact with rapidly expanding gas may cause burns or frostbite.

Moderately irritating to the skin. Contact with rapidly expanding gas may cause burns or frostbite.

Moderately irritating to the respiratory system.

Ingestion is not a normal route of exposure for gases

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

Carbon Dioxide

Section 3. Composition, Information on Ingredients

Carbon Dioxide

124-38-9

100

ACGIH TLV (United States, 1/2007).

STEL: 54000 mg/m³ 15 minute(s).

TWA: 9000 mg/m³ 8 hour(s).

NIOSH REL (United States, 12/2001).

STEL: 54000 mg/m³ 15 minute(s).

TWA: 9000 mg/m³ 10 hour(s).

OSHA PEL (United States, 11/2006).

TWA: 9000 mg/m³ 8 hour(s).

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Section 4. First aid measures

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Try to warm up the frozen tissues and seek medical attention.

Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

As this product is a gas, refer to the inhalation section.

Section 5. Fire fighting measures

Non-flammable.

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

Use an extinguishing agent suitable for the surrounding fire.

Apply water from a safe distance to cool container and protect surrounding area. If involved in fire, shut off flow immediately if it can be done without risk.

Contains gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst or explode.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Shut off gas supply if this can be done safely. Isolate area until gas has dispersed.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Immediately contact emergency personnel. Stop leak if without risk. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and storage

Wash thoroughly after handling. High pressure gas. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Keep container closed. Avoid contact with skin and clothing. Use with adequate ventilation. Avoid contact with eyes. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement. Never allow any unprotected part of the body to touch uninsulated pipes or vessels that contain cryogenic liquids. Prevent entrapment of liquid in closed systems or piping without pressure relief devices. Some materials may become brittle at low temperatures and will easily fracture.

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CAR DIOX

Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure controls/personal protection

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

When working with cryogenic liquids, wear a full face shield.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

The applicable standards are (US) 29 CFR 1910.134 and (Canada) Z94.4-93

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Insulated gloves suitable for low temperatures

Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Full chemical-resistant suit and self-contained breathing apparatus should be worn only by trained and authorized persons.

carbon dioxide

ACGIH TLV (United States, 1/2007).

STEL: 54000 mg/m³ 15 minute(s).

TWA: 9000 mg/m³ 8 hour(s).

NIOSH REL (United States, 12/2001).

STEL: 54000 mg/m³ 15 minute(s).

TWA: 9000 mg/m³ 10 hour(s).

OSHA PEL (United States, 11/2006).

TWA: 9000 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

Section 9. Physical and chemical properties

44.01 g/mole

C-O₂

-78.6°C (-109.5°F)

Sublimation temperature: -78.5°C (-109.3°F)

30.9°C (87.6°F)

830 (psig)

Carbon Dioxide

1.53 (Air = 1)

8.7719

0.114

Section 10. Stability and reactivity

The product is stable.

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Under normal conditions of storage and use, hazardous polymerization will not occur.

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Section 11. Toxicological information

40000 ppm

Causes damage to the following organs: eyes.

May cause damage to the following organs: lungs, cardiovascular system, skin, central nervous system (CNS), eye, lens or cornea.

No specific information is available in our database regarding the other toxic effects of this material to humans.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

Section 12. Ecological information

Not available.

not available

Not available.

No known significant effects or critical hazards.

Not available.

Section 13. Disposal considerations

Section 14. Transport information

	UN1013	CARBON DIOXIDE	2.2	Not applicable (gas).		Limited quantity Yes.
	UN2187	Carbon dioxide, refrigerated liquid				Packaging instruction Passenger aircraft Quantity limitation: 75 kg Cargo aircraft Quantity

Carbon Dioxide						
						limitation: 150 kg
	UN1013	CARBON DIOXIDE	2.2	Not applicable (gas).		Explosive Limit and Limited Quantity Index 0.125
	UN2187	Carbon dioxide, refrigerated liquid				Passenger Carrying Road or Rail Index 75
	UN1013	CARBON DIOXIDE	2.2	Not applicable (gas).		-
	UN2187	Carbon dioxide, refrigerated liquid				

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CAR DIOX

Section 15. Regulatory information

United States inventory (TSCA 8b): This material is listed or exempted.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: carbon dioxide

SARA 311/312 MSDS distribution - chemical inventory - hazard identification:

carbon dioxide: Sudden release of pressure, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

Connecticut Carcinogen Reporting: This material is not listed.

Connecticut Hazardous Material Survey: This material is not listed.

Florida substances: This material is not listed.

Illinois Chemical Safety Act: This material is not listed.

Illinois Toxic Substances Disclosure to Employee Act: This material is not listed.

Louisiana Reporting: This material is not listed.

Louisiana Spill: This material is not listed.

Massachusetts Spill: This material is not listed.

Massachusetts Substances: This material is listed.

Michigan Critical Material: This material is not listed.

Minnesota Hazardous Substances: This material is not listed.

New Jersey Hazardous Substances: This material is listed.

New Jersey Spill: This material is not listed.

New Jersey Toxic Catastrophe Prevention Act: This material is not listed.

New York Acutely Hazardous Substances: This material is not listed.

New York Toxic Chemical Release Reporting: This material is not listed.

Pennsylvania RTK Hazardous Substances: This material is listed.

Rhode Island Hazardous Substances: This material is not listed.

Class A: Compressed gas.

Carbon Dioxide

CEPA Toxic substances: This material is listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is not listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Section 16. Other information

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CAR DIOX

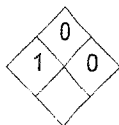
MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
CAN CAUSE TARGET ORGAN DAMAGE.
CONTENTS UNDER PRESSURE.

Class A: Compressed gas.

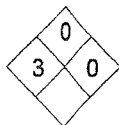
	*	1
		0
		0

liquid:

	3
	0
Reactivity	0
Personal protection	



liquid:



To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Material Safety Data Sheet



Superior Solutions

Zep Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name **CHERRY BOMB**
Product use Liquid Hand Cleaner
Product code **0951**
Date of issue **03/05/08** Supersedes **05/21/01**

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
INFOTRAC: (877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Printing date: 05/13/08

Prepared By

Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

CAUTION

MAY CAUSE EYE IRRITATION. MAY BE HARMFUL IF SWALLOWED.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

*Hazard Determination System (HDS): Health, Flammability, Reactivity



Acute Effects

Routes of Entry

Ingestion.

Eyes Contact may cause eye irritation. Inflammation of the eye is characterized by redness, watering and itching.

Skin No known acute effects of this product resulting from skin contact.

Inhalation No known acute effects of this product resulting from inhalation.

Ingestion May be harmful if swallowed. Can cause gastrointestinal disturbances.

Chronic effects

Prolonged or repeated contact may dry skin and cause irritation.

Carcinogenicity

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

CAS number

% by Weight

ODORLESS ALIPHATIC NAPHTHA; heavy alkylate petroleum naphtha; odorless mineral spirits

64741-65-7

20 - 30

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Skin Contact Rinse with plenty of running water. Get medical attention if irritation develops.

Inhalation Move exposed person to fresh air. Get medical attention if symptoms appear.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Closed cup: >93.3°C (200°F)
(Tagliabue.)

Flammable Limits Not determined.

Flammability Structure inhibits combustibility of solvent.

Fire hazard In a fire or if heated, a pressure increase will occur and the container may burst.



Fire-Fighting Procedures Use an extinguishing agent suitable for the surrounding fire.

Section 6. Accidental Release Measures

Spill Clean up Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. To clean the floor and all objects contaminated by this material, use detergent solution. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Section 7. Handling and Storage

Handling Avoid contact with eyes. Do not ingest.

Storage Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Do not store in unlabeled containers. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name

ODORLESS ALIPHATIC NAPHTHA; heavy alkylate petroleum naphtha; odorless mineral spirits

Exposure limits

OSHA PEL (United States).
TWA: 500 ppm 8 hour(s).
ACGIH TLV (United States).
TWA: 100 ppm 8 hour(s).

Personal Protective Equipment (PPE)

Eyes No special protection is required.

Body No special protective clothing is required.

Respiratory No special ventilation requirements.

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CHERRY

Section 9. Physical and Chemical Properties

Physical State Liquid. [Viscous liquid.]

pH 7.0 - 8.0

Boiling Point Not determined.

Specific Gravity 0.96

Solubility Emulsifies in water.

Color Red.

Odor Cherry

Vapor Pressure Not determined.

Vapor Density Not determined.

Evaporation Rate Not determined.

VOC (Consumer) 8.34 (g/l) 0.07 lbs/gal 0.87%

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Reactive or incompatible with the following materials: oxidizing materials.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products carbon oxides (CO, CO₂) May emit toxic fumes under fire conditions.

Section 11. Toxicological Information

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Odorless Aliphatic Naphtha	LD50 Oral	Rat	>18800 mg/kg	-
	LC50 Inhalation Vapor	Rat	>5900 mg/m ³	4 hours

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Not available.

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: - (None.)
Classification: - (Non-hazardous waste)

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	Not regulated.	Not a DOT controlled material (United States).	-	-	
IMDG Class	Not determined.			-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

CHERRY

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:
No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.

S00740
03 00

MATERIAL SAFETY DATA SHEET

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	DATE OF PREPARATION	HMIS CODES
S00740	15-JUN-08	Health 2 Flammability 2 Reactivity 1
PRODUCT NAME SPRAYON® (Zinc-Rich) Cold Galvanizing Compound		COLD GALV. SPRAYON

MANUFACTURER'S NAME
THE SHERWIN-WILLIAMS COMPANY
Consumer Group - Industrial
Cleveland, OH 44115

TELEPHONE NUMBERS and WEBSITES

Product Information
(800) 251-2486

Regulatory Information
(216) 566-2902

Medical Emergency
(216) 566-2917

Transportation Emergency
(800) 424-9300

www.paintdocs.com

for Chemical Emergency ONLY (spill, leak,
fire, exposure, or accident)

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
13	74-98-6	Propane		
		ACGIH TLV	2500 ppm	
		OSHA PEL	1000 ppm	760 mm
12	106-97-8	Butane		
		ACGIH TLV	800 ppm	
		OSHA PEL	800 ppm	760 mm
8	64742-89-8	V. M. & P. Naphtha		
		ACGIH TLV	300 ppm	
		OSHA PEL	300 ppm	12 mm
		OSHA PEL	400 ppm STEL	
4	108-88-3	Toluene		
		ACGIH TLV	20 ppm	
		OSHA PEL	100 ppm (Skin)	22 mm
		OSHA PEL	150 ppm (Skin) STEL	
11	78-93-3	Methyl Ethyl Ketone		
		ACGIH TLV	200 ppm	
		ACGIH TLV	300 ppm STEL	70 mm
		OSHA PEL	200 ppm	
		OSHA PEL	300 ppm STEL	
48	7440-66-6	Zinc		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	

 Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

INHALATION of vapor or spray mist.

EYE or SKIN contact with the product, vapor or spray mist.

EFFECTS OF OVEREXPOSURE

EYES: Irritation.

SKIN: Prolonged or repeated exposure may cause irritation.

INHALATION: Irritation of the upper respiratory system.

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death. C
COLD GALV - SPRAYING

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, cardiovascular and reproductive systems.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

 Section 4 -- FIRST AID MEASURES

EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.

INHALATION: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

INGESTION: Do not induce vomiting. Get medical attention immediately.

 Section 5 -- FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
Propellant < 0 F	0.9	10.0

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Containers may explode when exposed to extreme heat.

Application to hot surfaces requires special precautions.

During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used.

Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area.
Remove with inert absorbent.

Section 7 -- HANDLING AND STORAGE

STORAGE CATEGORY

Not Available

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

COLD GELV - SPRAYON C

Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Contents under pressure. Do not puncture, incinerate, or expose to temperature above 120F. Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation.

Avoid contact with skin and eyes. Avoid breathing vapor and spray mist.

Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

None required for normal application of aerosol products where minimal skin contact is expected. For long or repeated contact, wear chemical resistant gloves.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

 Section 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	9.60 lb/gal	1150 g/l
SPECIFIC GRAVITY	1.16	
BOILING POINT	<0 - 325 F	<-18 - 162 C
MELTING POINT	Not Available	
VOLATILE VOLUME	88 %	
EVAPORATION RATE	Faster than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
pH	7.0	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)		
Volatile Weight	48.52%	Less Water and Federally Exempt Solvents

COLDGALV-SPRAYON

 Section 10 -- STABILITY AND REACTIVITY

STABILITY -- Stable

CONDITIONS TO AVOID
None known.

INCOMPATIBILITY
None known.

HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION
Will not occur

 Section 11 -- TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.
Methyl Ethyl Ketone may increase the nervous system effects of other solvents.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

CAS No.	Ingredient Name					
74-98-6	Propane	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
106-97-8	Butane	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
64742-89-8	V. M. & P. Naphtha	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	
108-88-3	Toluene	LC50	RAT	4HR	4000	ppm
		LD50	RAT		5000	mg/kg
78-93-3	Methyl Ethyl Ketone	LC50	RAT	4HR	Not Available	
		LD50	RAT		2740 mg/kg	
7440-66-6	Zinc	LC50	RAT	4HR	Not Available	
		LD50	RAT		Not Available	

C
COLD GALV. SPANON

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Do not incinerate. Depressurize container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

US Ground (DOT)

May be classed as Consumer Commodity, ORM-D

UN1950, AEROSOLS, 2.1, LIMITED QUANTITY, (ERG#126)

Canada (TDG)

May be classed as Consumer Commodity, ORM-D

UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, (ERG#126)

IMO

May be shipped as Limited Quantity

UN1950, AEROSOLS, CLASS 2.1, LIMITED QUANTITY, EmS F-D, S-U

 Section 15 -- REGULATORY INFORMATION

 SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
108-88-3	Toluene		
	Zinc	4	46

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of CALIFORNIA California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

 Section 16 -- OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: (Zinc-It®) Instant Cold Galvanize

Product Number (s): 18412, 18412-6

C
COLD GALV-ZINC-IT

Manufactured By:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

General Information	(215) 674-4300
Technical Assistance	(800) 521-3168
Customer Service	(800) 272-4620
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Gray viscous liquid, aromatic odor

DANGER

Extremely Flammable. Harmful or Fatal if Swallowed. Vapor Harmful.
Contents Under Pressure.

As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Potential Health Effects:

EYE: Eye irritant. May cause irritation.

SKIN: Skin irritant. May cause irritation. Frequent exposure to solvents may cause defatting dermatitis.

INHALATION: Inhalation of solvents may cause irritation, dizziness, and nausea. Propellant is a simple asphyxiant.

INGESTION: May cause headache, nausea, vomiting and weakness.

CHRONIC EFFECTS: Defatting dermatitis to skin.

TARGET ORGANS: Unknown

Medical Conditions Aggravated by Exposure:

Unknown

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Zinc Elemental	7440-66-6	30 – 60
Toluene	108-88-3	10 – 30
Naphtha	8030-30-6	1 - 5
Isobutane	75-28-5	7 - 13
Propane	74-98-6	5 - 10

C
COLD GALV-ZINC-IT

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: Do not induce vomiting. Get medical attention.

Note to Physicians: Aspiration hazard. Treat symptomatically.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point: 39 F (TCC) **Upper Explosive Limit:** 9.5

Autoignition Temperature: > 800 F **Lower Explosive Limit:** 1.0

Suitable Extinguishing Media: Water, carbon dioxide, dry chemical, foam.

Products of Combustion: Hydrocarbon fumes and smoke. Carbon monoxide where combustion is incomplete.

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.

Product Name: Zinc-It® Instant Cold Galvanize

Product Number (s): 18412, 18412-6

Methods for Containment & Clean-up: Remove all sources of ignition. Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Do not use on energized equipment or near sources of ignition. Do not inhale vapors. Use local ventilation. C
COLO-GALV-ZINC-IT

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: I

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Zinc elemental	NE	NE	NE	NE	NE		
Toluene	200	300 (c)	20	NE	NE		ppm
Naphtha	500	NE	400	NE	NE		ppm
Isobutane	1000	NE	1000	NE	NE		ppm
Propane	1000	NE	1000	NE	NE		ppm

N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor / paint cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/Face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as neoprene or nitrile. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid

Color: gray

Odor: aromatic

Specific Gravity: 1.49 – 1.53

Initial Boiling Point: 195 F

Product Name: Zinc-It® Instant Cold Galvanize

Product Number (s): 18412, 18412-6

Freezing Point: NE

Vapor Pressure: 40 - 50 psig @ 68 F

Vapor Density: > 1 (air = 1)

Evaporation Rate: > 1 (butyl acetate = 1)

Solubility: negligible in water

pH: NA

Volatile Organic Compounds: wt %: 38 g/L: ~574 lbs./gal: ~4.8

Section 10: Stability and Reactivity

COLD GALV-ZINC-IT

Stability: Stable

Conditions to Avoid: Sources of ignition. Temperature extremes.

Incompatible Materials: Strong oxidizing agents

Hazardous Decomposition Products: Hydrocarbon fumes and smoke. Carbon monoxide.

Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

ACUTE EFFECTS

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Toluene	LD50	5000 mg/kg	Oral	Rat
Toluene	LC50	8000 ppm/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Mutagenicity: No information available

Other: None

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

toxicity:	No information available
Persistence / Degradability:	No information available
Bioaccumulation / Accumulation:	No information available
Mobility in Environment:	No information available

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is a RCRA hazardous waste for the characteristic of ignitability with the following potential waste codes: D001 (See 40 CFR Part 261.20 – 261.33) Aerosol containers should be fully emptied and depressurized before disposal. The empty container can be recycled.

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

C
COLD GALV - ZINC-IT

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Consumer Commodity, ORM-D

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

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

Reportable Quantities (RQ's) exist for the following ingredients: Zinc (1000 lbs), Toluene (1000 lbs)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:	Fire Hazard	Yes
	Reactive Hazard	No
	Release of Pressure	Yes
	Acute Health Hazard	Yes
	Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
Zinc compounds (<60%), Toluene (<30%)

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): Toluene

State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of

Product Name: Zinc-It® Instant Cold Galvanize

Product Number (s): 18412, 18412-6

California to cause cancer, birth defects or other reproductive harm: Ethylbenzene, Toluene

State Right to Know:

New Jersey: 7440-66-6, 108-88-3, 8030-30-6
Pennsylvania: 7440-66-6, 108-88-3, 8030-30-6
Massachusetts: 7440-66-6, 108-88-3, 8030-30-6
Rhode Island : 7440-66-6, 108-88-3, 8030-30-6

Additional Regulatory Information: This product complies with Aerosol Coating VOC regulations for Primers.
(MIR = 1.2) COLD GALV-ZINC-IT

Section 16: Other Information

NFPA: Health: 2 Flammability: 4 Reactivity: 1
HMIS: Health: 2 Flammability: 4 Reactivity: 1 PPE: B

Prepared By: Michelle Rudnick
CRC #: 03392-0008
Revision Date: 5/30/2007

Changes since last revision: MSDS reformatted in accordance with ANSI Z400.1-2004

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

CAS:	Chemical Abstract Service	NA:	Not Applicable
ppm:	Parts per Million	ND:	Not Determined
TCC:	Tag Closed Cup	NE:	Not Established
PMCC:	Pensky-Martens Closed Cup	g/L:	grams per Liter
PPE:	Personal Protection Equipment	lbs./gal:	pounds per gallon
TWA:	Time Weighted Average	STEL:	Short Term Exposure Limit
OSHA:	Occupational Safety and Health Administration	AIHA:	American Industrial Hygiene Assoc.
ACGIH	American Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		



Material Safety Data Sheet-Coolube 2210EP

6/21/2006

C
Cool

1. IDENTIFICATION OF THE SUBSTANCE/COMPANY INFORMATION

Commercial Name: Coolube 2210EP
Chemical Name: Mixed Esters of naturally occurring refined fatty acids
Chemical Family: Mixed Esters
Supplier Name: UNIST, Inc.
Address: 4134 - 36th Street SE
Grand Rapids, MI 49512
Phone no: (800) 253-5462 alternatively (616) 949-0853
Fax no: (616) 949-9503

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Composition: Composition based on natural esters
The components of this product are in compliance with the chemical notification requirements of the EPA TSCA.

Health hazardous components: None

Substances required to be listed without contributing to the classification of the composition:

<u>Hazardous components:</u>	<u>Wt %:</u>	<u>Classification, risk phrase:</u>
None	-	-

3. HAZARDS IDENTIFICATION

Health: Under intended use, the product is considered as non-toxic and safe.

Skin: Contact not expected to cause serious irritation.
Eyes: Contact not expected to cause serious irritation.
Ingesting: No evidence of adverse effects from available information
Inhalation: Vegetable oil mists are classified as "nuisance particulates" by the American Conference of Governmental Industrial Hygienists (no health effects reported)

Environment: Avoid releases to the environment.
Experiments made on this and similar products indicate that the product can be considered a low danger to the environment. However, regulations forbid the disposal of lubricants in the environment without special permit.

Physical-chemical hazards: No particular risk of ignition or explosion.
Specific risks: None

The product is considered not hazardous according to the EU Dangerous Substances/Preparations Directives classification scheme (67/548/EEG, last amended by EU Directive 1999/45/EG).

4. FIRST AID MEASURES

Inhalation: Remove to fresh air.
Skin contact: Wash with detergent and water.
Eye splashes: Flush with generous amounts of temperate water for a minimum of 15 minutes. Seek medical help if the problems remain.
Ingestion: Drink moderate amounts of water or milk. Do not induce vomiting. Contact medical professional if any adverse reactions are noticed.

Trade name: Unist Coolube 2210EP
Date: 6/21/2006

1(3)

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity (OECD 401): LD₅₀ rat >2000 mg/kg, i.e. not toxic
Skin irritation (OECD 404): Not tested.

12. ECOLOGICAL INFORMATION

Biodegradability: The product is readily biodegradable according to CEC L-33-A-93 (>80 % in 21 days).

Cool

13. DISPOSAL CONSIDERATIONS

Used product: As per existing regulations.
Used packaging: As per existing regulations.

14. TRANSPORT INFORMATION

The product is not classified as dangerous goods.

15. REGULATORY INFORMATION

Symbols: None
Risk phrases: None
Safety phrases: None

No labelling required according to EU Regulations.

Superfund Amendments and Reauthorization Act of 1986(SARA) Title III requires submission of annual reports of toxic chemicals that appear in 40 CFR 372(for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in the product at a level which could require reporting under the statute are: None

16. OTHER INFORMATION

Coolube 2210 EP is a neat metalworking oil with superior lubricating properties. The product is based on vegetable oils and natural esters and should be used undiluted in, for example, minimal lubrication applicators.

This product (or components, if a mixture) has not been found to be a carcinogen or potential carcinogen by IARC; is not listed in the NTP Third Annual Report; nor is it regulated by OSHA as a carcinogen.

The information presented herein has been compiled from sources considered by the company, in good faith, to be dependable and is accurate and reliable to the best of our knowledge and belief. However, the company cannot make any warranty or representation respecting the accuracy or completeness of the data and assumes no responsibility for any liability or damages relating thereto or for advising you regarding the protection of your employees, customers, or others. Users should make their own tests to determine the applicability or such information or suitability of any products for specific use.

HMS Rating (USA):

Health:	0
Flammability:	1
Physical Hazard:	0

0=Minimal, 1= Slight, 2=Moderate,
3= Serious, 4=Severe
*=Chronic Health Hazard

Trade name: Unist Coolube 2210EP
Date: 6/21/2006



Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: CRC 3-36® Multi-Purpose Lubricant and Corrosion Inhibitor (aerosol)

Product Number (s): 03004, 03005, 03093, 83005

C
CRC

Manufactured By:
CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com

General Information	(215) 674-4300
Technical Assistance	(800) 521-3168
Customer Service	(800) 272-4620
24-Hr Emergency (CHEMTREC)	(800) 424-9300

Section 2: Hazards Identification

Emergency Overview

Appearance & Odor: Clear blue-green liquid, pleasant odor

DANGER

Flammable. Harmful or Fatal if Swallowed. Contents Under Pressure.

As defined by OSHA's Hazard Communication Standard, this product is hazardous.

Potential Health Effects:

- EYE:** Contact may cause mild irritation including stinging, watering and redness.
- SKIN:** Contact may cause redness, itching, burning and skin damage. Prolonged or repeated contact can worsen irritation and lead to dermatitis. No harmful effects from skin absorption are expected.
- INHALATION:** Expected to have a low degree of toxicity by inhalation. High concentrations of vapors may be irritating to the respiratory tract, and may cause headaches, dizziness, anesthesia, drowsiness, and other central nervous system effects.
- INGESTION:** Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.
- CHRONIC EFFECTS:** None known
- TARGET ORGANS:** None known

Medical Conditions Aggravated by Exposure:

pre-existing dermatitis

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Product Name: 3-36® Multi-Purpose Lubricant and Corrosion Inhibitor (Aerosol)
Product Number (s): 03004, 03005, 03093, 83005

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Hydrotreated light distillates	64742-47-8	65 - 75
Solvent-refined heavy paraffinic distillates	64741-88-4	15 - 25
Inhibitor blend	proprietary	5 - 15
Carbon dioxide	124-38-9	1 - 5

CRC

Section 4: First Aid Measures

Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.

Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

Ingestion: If swallowed, do NOT induce vomiting. Keep at rest. Get prompt medical attention.

Note to Physicians: This product is an aspiration hazard.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is flammable in accordance with aerosol flammability definitions (16 CFR 1500.3(c)(6)).

Flash Point:	170 F (TCC)	Upper Explosive Limit:	5.0
Autoignition Temperature:	ND	Lower Explosive Limit:	0.7

Suitable Extinguishing Media: Foam, dry chemical, carbon dioxide or water spray.

Products of Combustion: Oxides of carbon

Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protection recommended in Section 8.

Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush

Product Name: 3-36® Multi-Purpose Lubricant and Corrosion Inhibitor (Aerosol)
Product Number (s): 03004, 03005, 03093, 83005

into sewers or storm drains.

Methods for Containment & Clean-up: Remove sources of ignition. Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Do not use near an open flame, heat or other sources of ignition.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120 F to prevent cans from rupturing.

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Hydrotreated light distillates	NE	NE	NE	NE	1200	mfr	mg/m ³
Solvent-refined heavy paraffinic distillates	5*	NE	5*	10*	NE		mg/m ³
Inhibitor blend	NE	NE	NE	NE	NE		
Carbon dioxide	5000	30000(v)	5000	30,000	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated *- oil mist							

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as nitrile or neoprene. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: Liquid

Color: Blue-green

Product Name: 3-36® Multi-Purpose Lubricant and Corrosion Inhibitor (Aerosol)
Product Number (s): 03004, 03005, 03093, 83005

Odor: Pleasant
Specific Gravity: 0.8187
Initial Boiling Point: 380 F
Freezing Point: ND
Vapor Pressure: ND
Vapor Density: > 1 (air = 1)
Evaporation Rate: ND (butyl acetate = 1)
Solubility: negligible in water
pH: NA
Volatile Organic Compounds: wt %: 39.1 g/L: 320.1 lbs./gal: 2.67

CRC

Section 10: Stability and Reactivity

Stability: Stable
Conditions to Avoid: Temperature extremes, sources of ignition
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition Products: Oxides of carbon, oxides of sulfur, hydrocarbons
Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

ACUTE EFFECTS

<u>Component</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Hydrotreated light distillate	LD50	> 5 g/kg	Oral	Rat
Hydrotreated light distillate	LD50	> 2 g/kg	Dermal	Rabbit
Hydrotreated light distillate	LC50	> 5 mg/L/4H	Inhalation	Rat

CHRONIC EFFECTS

Carcinogenicity:

	<u>Component</u>	<u>Result</u>
OSHA:	None listed	
IARC:	None listed	
NTP:	None listed	

Other: Paraffinic distillates Product testing using IP 346 shows a DMSO PAH content of < 3% by weight.

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: No information available

Product Name: 3-36® Multi-Purpose Lubricant and Corrosion Inhibitor (Aerosol)

Product Number (s): 03004, 03005, 03093, 83005

Persistence / Degradability: No information available

Bioaccumulation / Accumulation: No information available

Mobility in Environment: No information available

Section 13: Disposal Considerations

Disposal: The dispensed liquid product is not a RCRA hazardous waste. (See 40 CFR Part 261.20 – 261.33) CRC
Aerosol containers should be fully emptied and depressurized before disposal. The empty container can be recycled.

All disposal activities must comply with federal, state and local regulations. Local regulations may be more stringent than state or national requirements.

Section 14: Transport Information

Proper shipping description:

US DOT (ground): Consumer Commodity, ORM-D

Special Provisions: None

Section 15: Regulatory Information

U.S. Federal

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

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

Reportable Quantities (RQ's) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:	Fire Hazard	Yes
	Reactive Hazard	No
	Release of Pressure	Yes
	Acute Health Hazard	Yes
	Chronic Health Hazard	No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
None

Clean Air Act:

Product Name: 3-36® Multi-Purpose Lubricant and Corrosion Inhibitor (Aerosol)
Product Number (s): 03004, 03005, 03093, 83005

Section 112 Hazardous Air Pollutants (HAPs): None

State Regulations

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: NONE

CRC

State Right to Know:

New Jersey: None
Pennsylvania: None
Massachusetts: None
Rhode Island: None

Additional Regulatory Information: None

Section 16: Other Information

NFPA: Health: 1 Flammability: 2 Reactivity: 0
HMIS: Health: 1 Flammability: 2 Reactivity: 0 PPE: B

Prepared By: Michelle Rudnick
CRC #: 510C
Revision Date: 05/19/2008

Changes since last revision: Part number added

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label.

CAS:	Chemical Abstract Service	NA:	Not Applicable
ppm:	Parts per Million	ND:	Not Determined
TCC:	Tag Closed Cup	NE:	Not Established
PMCC:	Pensky-Martens Closed Cup	g/L:	grams per Liter
PPE:	Personal Protection Equipment	lbs./gal:	pounds per gallon
TWA:	Time Weighted Average	STEL:	Short Term Exposure Limit
OSHA:	Occupational Safety and Health Administration		
ACGIH	American Conference of Governmental Industrial Hygienists		
NIOSH	National Institute of Occupational Safety & Health		