



Safety Data Sheet

Weld Kleen Heavy Duty

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

- 1.1 Product Identifier**
Trade Name Weld Kleen Heavy Duty
Product Number 007030
- 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**
Product Use: Welding Process Aid
- 1.3 Details of the Supplier of the Safety Data Sheet**
Manufacturer: Weld-Aid Products
 14650 Dequindre
 Detroit , Michigan
Information Phone Number: +1 (313) 883-6977
 +1 (313) 883-4930
E-mail info@weldaid.com
- 1.4 Emergency Telephone Number**
Emergency Spill Information +1 (800) 255-3924

SDS Date of Preparation: July 14, 2014

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

CLP/GHS Classification (1272/2008):

Physical:	Health:	Environmental
Gas Under Pressure – Compressed Gas	Eye Irritation Category 2A Skin Irritation Category 2 Specific Target Organ Toxicity – Single Exposure Category 3 (H335, H336) Carcinogen Category 1B	None

EU Classification (67/548/EEC): Xn R40 (Carcinogen Category 2)

2.2 Label Elements

Danger! Contains methylene chloride



Hazard Phrases

H280	Contains gas under pressure; may explode if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H350	May cause cancer.

Precautionary Phrases

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing mist, vapors or spray.

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P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing, eye protection or face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical attention.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P332 + P313	If skin irritation occurs: Get medical attention.
P362	Take off contaminated clothing and wash before reuse.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical attention.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/ 122 F.
P405	Store locked up.
P501	Dispose of contents and container in accordance with local and national regulations.

2.3 Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical Name	CAS# /	EINECS#	EU Classification (67/548/EEC)	GHS Classification Regulation (EC) No 1272/2008	%
Methylene Chloride (Dichloromethane)	75-09-2	200-838-9	Xn (Carc Cat 2) R40	Eye Irritation Category 2A (H319), Skin Irritation Category 2 (H315), Specific Target Organ Toxicity Single Exposure Category 3 (H335, H336), Carcinogen Category 1B (H350)	>90
Oleic Acid	112-80-1	204-007-1	Xi R36	Eye Irritation Category 2A (H319)	<10%
Carbon Dioxide	124-38-9	204-696-9	Not dangerous	Gases Under Pressure- Compressed Gas H280	1-5

See Section 16 for further information on EU and GHS Classification.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Eyes: Flush eyes immediately with water for at least 15 minutes, holding the eyelids apart. If irritation persists, call a physician.

Skin: Remove contaminated clothing and shoes. Wash exposed area thoroughly with soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Get medical attention if irritation persists.

Inhalation: Remove to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

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Ingestion: Ingestion is an unlikely route of exposure for aerosol products. If ingestion occurs rinse mouth with a small amount of water. Aspiration hazard – DO NOT induce vomiting. Never give anything by mouth to an unconscious or drowsy person. Get immediate medical attention.

- 4.2 Most Important symptoms and effects, both acute and delayed:** Causes eye and skin irritation. Inhalation of vapors or mist may cause respiratory irritation and central nervous system effects such as headache, dizziness, drowsiness, nausea and unconsciousness. Harmful or fatal if swallowed. Overexposure may cause heart, liver, kidney, blood system and nervous system damage. Methylene chloride is converted to carbon monoxide in the body which may worsen heart disease. May cause cancer based on animal data.
- 4.3 Indication of any immediate medical attention and special treatment needed:** Immediate medical treatment is required for inhalation or ingestion.
Notes to Physicians: Adrenaline should never be given to a person overexposed to methylene chloride. The finding of chronic toxic effects in laboratory animals may indicate toxicity to humans.

SECTION 5: FIRE FIGHTING MEASURES

- 5.1 Extinguishing Media:**
Use carbon dioxide, foam or dry chemical. Do not use water to extinguish fire. Water spray can be used to cool exposed containers and structures.
- 5.2 Special Hazards Arising from the Substance or Mixture**
Unusual Fire and Explosion Hazards: Contents under pressure. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may accumulate in low lying areas. Combustion products are toxic and corrosive.
Hazardous Decomposition Products: Combustion may produce hydrogen chloride, phosgene and silicone dioxide.
- 5.3 Advice for Fire-Fighters:**
Firefighters should always wear self-contained breathing apparatus and full protective clothing for fires involving chemicals or in confined spaces. Do not allow run-off from fire fighting to enter drains or water courses. Stay up wind to avoid hazardous vapors and toxic decomposition products. Use shielding to protect against bursting containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:**
Evacuate spill area and keep unprotected personnel away. Eliminate all ignition sources. Ventilate area. Wear appropriate protective clothing as described in Section 8.
- 6.2 Environmental Precautions:**
Avoid contamination of soil, surface water and ground water. Do not flush to sewer! Report releases as required by local, state and federal authorities.
- 6.3 Methods and Material for Containment and Cleaning Up:**
Contain and collect using an absorbent material and place in an appropriate container for disposal. Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated.
- 6.4 Reference to Other Sections:**
Refer to Section 8 for protective equipment and Section 15 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for Safe Handling:**
Avoid contact with the eyes, skin and clothing. Avoid breathing vapors. Do not swallow. Wear protective clothing and equipment as described in Section 8. Use only with adequate ventilation. Do not use in poorly ventilated or confined spaces. Vapors are heavier than air and will collect in low areas. Wash thoroughly with soap and water after handling and before eating, drinking or using restroom. Contents under pressure. Do not puncture or incinerate container. Do not eat, drink or smoke in work areas.

Do not cut, drill, grind or weld on or near containers, even empty containers. Follow all MSDS precautions when

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handling empty containers.

In the United States, refer to OSHA 1910.1052 for requirements for handling and use of methylene chloride.

7.2 Conditions for Safe Storage, Including any Incompatibilities

Store in a cool, dry, well ventilated area away from ignition sources. Keep containers tightly closed when not in use. Prevent moisture from entering containers. Store away from oxidizers and other incompatible materials. Do not store above 120°F.

7.3 Specific end use(s):

Welding product

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Name	Exposure Limits
Methylene Chloride (Dichloromethane)	25 ppm TWA OSHA PEL, 125 ppm STEL 50 ppm TWA ACGIH TLV 100 ppm TWA UK OEL, 300 ppm STEL 75 ppm TWA Germany AGS, 300 ppm STEL
Oleic Acid	None Established
Carbon dioxide	5000 ppm TWA OSHA PEL 5000 ppm TWA ACGIH TLV, 30,000 ppm STEL

In the United States, 29 CFR 1910.1052 is the OSHA regulation on Occupational Exposure to Methylene Chloride. Assure compliance with these regulations.

8.2 Exposure Controls:

Engineering Controls: Use with adequate local exhaust ventilation to maintain exposures below the occupational exposure limits. Use explosion proof equipment where required.

Respiratory Protection: If the exposure limits are exceeded an approved full facepiece supplied air respirator or self-contained breathing apparatus should be used. Selection and use of respiratory equipment must be in accordance with applicable regulations and good industrial hygiene practice.

Skin Protection: Wear impervious gloves such as viton, poly vinyl alcohol (PVA).

Eye Protection: Chemical safety goggles and/or faceshield should be worn to where splashing is possible.

Other: Solvent resistant boots apron and headgear should be used to prevent contact. A safety shower and eye wash should be available in the immediate work area.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties:

Appearance Clear, colorless liquid in an aerosol container	Vapor Density: 2.9
Odor: Mild, sweet odor.	Specific Gravity: 1.31
Odor Threshold: 160 ppm (methylene chloride)	Water Solubility: 1.32 gm/100 gm @ 25°C
pH: Not available	Octanol/Water Partition Coefficient: Not available
Melting Point/Freezing Point: Not applicable	Autoignition Temperature: Not applicable
Boiling Point: 103.1°F (39.5°C)	Decomposition Temperature: Not applicable
Flash Point: None	Viscosity: Not applicable
Evaporation Rate: 0.7 (ether = 1)	Explosion Properties: Vapors may be explosive in confined areas.
Flammable Limits: LEL: 13% UEL: 19%	Oxidizing Properties: No data available
Vapor Pressure: 352 mmHg @ 20°C	

9.2 Other Information:

None

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SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity:**
Not reactive under normal conditions of use.
- 10.2 Chemical Stability:**
Stable under normal storage and handling conditions.
- 10.3 Possibility of Hazardous Reactions:**
Contact with moisture may yield trichloroacetic acid and hydrochloric acid.
- 10.4 Conditions to Avoid:**
Avoid contact with open flames, electric arc and other hot surfaces which can cause thermal decomposition.
- 10.5 Incompatible Materials:**
Avoid alkalies, acids, oxidizing agents and reactive metals such as aluminum and its alloys, zinc, magnesium, potassium and sodium.
- 10.6 Hazardous Decomposition Products:**
Carbon monoxide, hydrogen chloride, phosgene and chlorine.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 Information on Toxicological Effects:**
Eyes: Vapors or mists may cause irritation, redness and tearing. Direct contact may cause temporary eye damage.
Skin: Liquid methylene chloride is painful and irritating if confined to skin by gloves, clothing, etc. Prolonged or repeated contact may cause irritation, defatting of skin, and dermatitis. Absorption through intact skin is possible if contact with liquid is prolonged.
Ingestion: Ingestion may cause mucous membrane and gastrointestinal irritation, nausea, vomiting or diarrhea and other symptoms listed under inhalation. Aspiration into the lungs during ingestion or vomiting may cause serious lung damage which may be fatal. Alcohol consumed before or after exposure may increase adverse effects.
Inhalation: Inhalation of vapors or mists may cause mucous membrane and respiratory irritation and central nervous system depression with symptoms of headache, dizziness, nausea, incoordination, drunkenness, stupor, irregular heartbeat, cardiac arrest, unconsciousness and death. Overexposure may cause cardiac sensitization and increased risk of cardiac arrest, adverse effects on the lungs, liver, kidney, nervous system and other internal organs. Carboxyhemoglobin levels can be elevated in persons exposed to methylene chloride causing stress on the cardiovascular system. Alcohol consumption may increase adverse effects.

Acute Toxicity Values:

Methylene Chloride: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 49 mg/L/7 hr, Skin rat LD50 >2000 mg/kg.

Oleic Acid: Oral rat LD50 >2000 mg/kg

Carbon dioxide: No toxicity data available

Irritation: Methylene chloride has been shown to be irritating in humans on repeated contact particularly when sealed to the skin by shoes or tight clothing.

Corrosivity: This is not a corrosive product.

Sensitization: This product is not expected to cause sensitization.

Repeat Dose Toxicity: Epidemiology studies of 751 humans chronically exposed to methylene chloride in the workplace, of which 252 were exposed for a minimum of 20 years, did not demonstrate any increase in deaths caused by cancer or cardiac problems. A second study of 2,227 workers confirmed these results.

Carcinogen Status: Methylene chloride has been evaluated for possible cancer causing effects in laboratory animals. Inhalation studies at concentrations of 2,000 and 4,000 ppm increased the incidence of malignant liver and kidney tumors in mice. Three inhalation studies of rats have shown increased incidence of benign mammary gland tumors in female rats at concentrations of 500 ppm and above and increases in benign mammary gland tumors in males at concentrations of 1,500 ppm and above. Rats exposed to 50 and 200 ppm via inhalation showed no increased incidence of tumors. Mice and rats exposed by ingestion at levels up to 250-ppm/kg/day lifetime and hamsters exposed via inhalation to concentrations up to 3,500-ppm lifetime did not

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show an increased incidence of tumors.

Methylene Chloride is listed by IARC as “Possibly Carcinogenic to Humans (Group 2B) by IARC, as “Reasonably Anticipated to Be a Human Carcinogen” by NTP, as a “Confirmed Animal Carcinogen with Unknown Relevance to Humans (A3) by ACGIH, and a Carcinogen Category 2 by the European Union. It is regulated by OSHA as a carcinogen.

Germ Cell Mutagenicity: Methylene chloride tested positive in AMES test but negative in CHO assay and invivo micronucleus assay.

Toxicity for Reproduction: Methylene chloride has been shown to cause reproductive toxicity and/or birth defects only at doses that produce significant toxicity in the parent animal.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

Methylene Chloride: LC50/96-hour Fathead Minnow - >190 mg/l
Carbon dioxide: 96 hr LC50 Oncorhynchus mykiss 35 mg/L

12.2 Persistence and Degradability:

Methylene is reported to completely biodegrade under aerobic conditions with sewage seed or activated sludge between 6 hours to 7 days. 86-92 % conversion to CO2 will occur after a varying acclimation period using anaerobic digestion in wastewater.

12.3 Bioaccumulative Potential::

Methylene chloride has an estimated BCF of <2 which suggests the potential for bioaccumulation is low.

12.4 Mobility in Soil:

Methylene chloride is expected to be highly mobile in soil.

12.5 Results of PBT and vPvB Assessment:

Not required.

12.6 Other Adverse Effects:

None known.

SECTION 13: DISPOSAL INFORMATION

13.1 Waste Treatment Methods

Dispose in accordance with local and national environmental regulations.

SECTION 14: TRANSPORT INFORMATION
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	41.1 UN Number	41.2 UN Proper Shipping Name	14.3 Transport Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	UN1950	Aerosols	2.2 (6.1)	Not applicable	Not applicable
EU ADR/RID	UN1950	Aerosols	2.2 (6.1)	Not applicable	Not applicable
IMDG	UN1950	Aerosols	2.2 (6.1)	Not applicable	Not applicable

14.6 Special Precautions for User:

None

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable – product is transported only in packaged form.

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SECTION 15: REGULATORY INFORMATION

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

International Inventories:

US EPA TSCA Inventory: All of the components are listed on the TSCA inventory.

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List.

European Union: All of the components of this product are listed on the European Inventory of New and Existing Chemical Substances (EINECS) inventory.

Australia: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances (AICS).

China: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).

Korea: All of the components of this product are listed on the Korean Existing Chemical List (KECL).

Japan: All of the components of this product are listed on the Japanese Existing and New Chemical Substances List (ENCS).

New Zealand: All of the components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC).

Philippines: All of the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

U.S. REGULATIONS

OSHA Hazard Classification: Carcinogen, Target organ effects, Irritant, Toxic, Compressed gas

CERCLA: This product has a Reportable Quantity (RQ) of 1,000 lbs. based on the RQ for methylene chloride 1,000 lbs. Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

EPA SARA 302: This product does not contain chemicals regulated under SARA Section 302.

EPA SARA 311 Hazard Classification: Acute Health, Chronic Health, Sudden Release of Pressure

EPA SARA 313: This product contains the following chemicals that are regulated under SARA Title III, section 313:

Methylene Chloride	75-09-2	>90
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California Proposition 65: This product contains the following chemicals which are known to the State of California to cause cancer, reproductive toxicity or birth defects: Methylene Chloride >90% (cancer).

INTERNATIONAL REGULATIONS

WHMIS Classification: Class A (Compressed Gas), Class D Division 1 Subdivision B (Toxic material causing immediate and serious toxic effects), Class D Division 2 Subdivision A (Very toxic material causing other toxic effects)

15.2 Chemical Safety Assessment:

Not required

SECTION 16: OTHER INFORMATION

SDS Revision History:

11/14/11: Converted US SDS to EU REACH SDS

7/14/14: Section 2.1 GHS Classification; Section 2.2 Label Elements, Hazard Phrases, Precautionary Phrases; Section 3.1 Composition; Section 4.1 Moved Notes to Physicians to Section 4.3. Section 8 Occupational Exposure Limits; Section 9 Appearance; Section 11 Acute Toxicity Values; Section 12 Ecological Toxicity

GHS Phrases for Reference (See Section 2 and 3):

H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H350 May cause cancer.

EU Classes and Risk Phrases for Reference (See Sections 2 and 3):

Xi Irritant

Xn Harmful

Carc Cat 2 Carcinogen Category 2

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R36 Irritating to eyes.

R40 Possible risk of cancer.

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