

# SAFETY DATA SHEET

## 1. Identification

Product number	80-929
Product identifier	<b>Solv-All 2</b>
Company information	KIMBALL MIDWEST 4800 ROBERTS RD COLUMBUS, OH 43228 United States
Company phone	General Assistance 614-219-6100
Emergency telephone US	1-800-424-9300
Version #	01
Recommended use	Cleaner
Recommended restrictions	None known.

## 2. Hazard(s) identification

Physical hazards	Gases under pressure	Compressed gas
Health hazards	Carcinogenicity	Category 1
OSHA defined hazards	Not classified.	

### Label elements



Signal word	Danger
Hazard statement	Contains gas under pressure; may explode if heated. May cause cancer.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If exposed or concerned: Get medical advice/attention.
Storage	Store locked up. Protect from sunlight. Store in a well-ventilated place.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Environmental hazards	Hazardous to the aquatic environment, acute hazard      Category 2
	Hazardous to the aquatic environment, long-term hazard      Category 2
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Perchloroethylene		127-18-4	80 - 90
Methylene Chloride		75-09-2	10 - 20
Carbon Dioxide		124-38-9	2.5 - 10
Carbon Tetrachloride		56-23-5	0.1 - 1
Other components below reportable levels			0.01 - 0.1

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center.
Most important symptoms/effects, acute and delayed	Headache. Dizziness. Nausea.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
Environmental precautions	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.  Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Store locked up. Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store in a well-ventilated place. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Components	Type	Value
Methylene Chloride (CAS 75-09-2)	STEL	125 ppm
	TWA	25 ppm
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)		
Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	PEL	9000 mg/m3
		5000 ppm
US. OSHA Table Z-2 (29 CFR 1910.1000)		
Components	Type	Value
Carbon Tetrachloride (CAS 56-23-5)	Ceiling	25 ppm
	TWA	10 ppm
Perchloroethylene (CAS 127-18-4)	Ceiling	200 ppm
	TWA	100 ppm
US. ACGIH Threshold Limit Values		
Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm
Carbon Tetrachloride (CAS 56-23-5)	STEL	10 ppm
	TWA	5 ppm
Methylene Chloride (CAS 75-09-2)	TWA	50 ppm
Perchloroethylene (CAS 127-18-4)	STEL	100 ppm
	TWA	25 ppm
US. NIOSH: Pocket Guide to Chemical Hazards		
Components	Type	Value
Carbon Dioxide (CAS 124-38-9)	STEL	54000 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards		
Components	Type	Value
Carbon Tetrachloride (CAS 56-23-5)	TWA	30000 ppm
		9000 mg/m3
		5000 ppm
	STEL	12.6 mg/m3
		2 ppm

Biological limit values

ACGIH Biological Exposure Indices				
Components	Value	Determinant	Specimen	Sampling Time
Methylene Chloride (CAS 75-09-2)	0.3 mg/l	Dichloromethane	Urine	*
Perchloroethylene (CAS 127-18-4)	0.5 mg/l	Tetrachloroethylene	Blood	*
	3 ppm	Tetrachloroethylene	End-exhaled air	*

\* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Carbon Tetrachloride (CAS 56-23-5) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Carbon Tetrachloride (CAS 56-23-5) Skin designation applies.  
Perchloroethylene (CAS 127-18-4) Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

Carbon Tetrachloride (CAS 56-23-5) Can be absorbed through the skin.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
Other	Wear suitable protective clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations** Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Gas.
Form	Aerosol. Compressed gas.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	250.34 °F (121.3 °C) estimated
Flash point	Not available.

Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	12 % estimated
Flammability limit - upper (%)	19 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	100 psig @70F estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	1033 °F (556.11 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Aerosol spray enclosed space	
Deflagration density	2815 g/cm3
Time equivalent	600 s/m³
Explosive properties	Not explosive.
Heat of combustion (NFPA 30B)	0.31 kJ/g estimated
Oxidizing properties	Not oxidizing.
Specific gravity	1.377 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Hydrogen chloride.

11. Toxicological information

Information on likely routes of exposure	
Inhalation	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. Dizziness. Nausea.
Information on toxicological effects	
Acute toxicity	

Components	Species	Test Results
Methylene Chloride (CAS 75-09-2)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg, Days
<b>Inhalation</b>		
<i>Vapor</i>		
LC50	Mouse	49000 mg/m3, 7 Hours
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg
Perchloroethylene (CAS 127-18-4)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	Dog; Mouse; Rabbit; Rat	3000 ppm
<b>Oral</b>		
LD50	Cat; Dog; Mouse; Rabbit; Rat	> 1500 mg/kg
	Rat	3005 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Serious eye damage/eye irritation</b>	Direct contact with eyes may cause temporary irritation.
<b>Respiratory or skin sensitization</b>	
<b>Respiratory sensitization</b>	Not a respiratory sensitizer.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Carcinogenicity</b>	May cause cancer.
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>	
Carbon Tetrachloride (CAS 56-23-5)	2B Possibly carcinogenic to humans.
Methylene Chloride (CAS 75-09-2)	2A Probably carcinogenic to humans.
Perchloroethylene (CAS 127-18-4)	2A Probably carcinogenic to humans.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Methylene Chloride (CAS 75-09-2)	Cancer
<b>US. National Toxicology Program (NTP) Report on Carcinogens</b>	
Carbon Tetrachloride (CAS 56-23-5)	Reasonably Anticipated to be a Human Carcinogen.
Methylene Chloride (CAS 75-09-2)	Reasonably Anticipated to be a Human Carcinogen.
Perchloroethylene (CAS 127-18-4)	Reasonably Anticipated to be a Human Carcinogen.
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

<b>Ecotoxicity</b>	Toxic to aquatic life with long lasting effects.
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Components	Species	Test Results
Carbon Tetrachloride (CAS 56-23-5)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 9.68 - 11.3 mg/l, 96 hours



IATA

UN number	UN1950
UN proper shipping name	Aerosols, non-flammable
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Label(s)	2.2
Packing group	Not applicable.
Environmental hazards	No.
ERG Code	2L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.
Packaging Exceptions	LTD QTY

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.2
Subsidiary risk	-
Label(s)	2.2
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Packaging Exceptions	LTD QTY
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	
Not regulated.	

CERCLA Hazardous Substance List (40 CFR 302.4)

Carbon Tetrachloride (CAS 56-23-5)	Listed.
Methylene Chloride (CAS 75-09-2)	Listed.
Perchloroethylene (CAS 127-18-4)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Methylene Chloride (CAS 75-09-2)	Cancer
	Heart
	Central nervous system
	Liver
	Skin irritation
	Eye irritation

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - No
	Delayed Hazard - Yes
	Fire Hazard - No
	Pressure Hazard - Yes
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	No
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SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Perchloroethylene	127-18-4	80 - 90
Methylene Chloride	75-09-2	10 - 20
Carbon Tetrachloride	56-23-5	0.1 - 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Carbon Tetrachloride (CAS 56-23-5)
Methylene Chloride (CAS 75-09-2)
Perchloroethylene (CAS 127-18-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
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US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Carbon Tetrachloride (CAS 56-23-5)
Methylene Chloride (CAS 75-09-2)
Perchloroethylene (CAS 127-18-4)

US. Massachusetts RTK - Substance List

Carbon Dioxide (CAS 124-38-9)
Carbon Tetrachloride (CAS 56-23-5)
Methylene Chloride (CAS 75-09-2)
Perchloroethylene (CAS 127-18-4)

US. New Jersey Worker and Community Right-to-Know Act

Carbon Dioxide (CAS 124-38-9)
Carbon Tetrachloride (CAS 56-23-5)
Methylene Chloride (CAS 75-09-2)
Perchloroethylene (CAS 127-18-4)

US. Pennsylvania Worker and Community Right-to-Know Law

Carbon Dioxide (CAS 124-38-9)
Carbon Tetrachloride (CAS 56-23-5)
Methylene Chloride (CAS 75-09-2)
Perchloroethylene (CAS 127-18-4)

US. Rhode Island RTK

Carbon Tetrachloride (CAS 56-23-5)  
Methylene Chloride (CAS 75-09-2)  
Perchloroethylene (CAS 127-18-4)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Carbon Tetrachloride (CAS 56-23-5)	Listed: October 1, 1987
Methylene Chloride (CAS 75-09-2)	Listed: April 1, 1988
Perchloroethylene (CAS 127-18-4)	Listed: April 1, 1988
Propylene Oxide (CAS 75-56-9)	Listed: October 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	08-22-2016
Version #	01
Disclaimer	We cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
Revision information	Product and Company Identification: Alternate Trade Names Composition / Information on Ingredients: Ingredients