Safety Data Sheet:
Material Name: Elmer's Multi-Purpose Spray Adhesive
SDS ID: SDS-23
Issue Date: 2015-09-16
Revision: 2.2

Other Sections
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name
Elmer's Multi-Purpose Spray Adhesive

Synonyms
E451, E452, 60451, E6451B, E6452B

Chemical Family
Adhesive

Details of the supplier of the safety data sheet

Elmer's Products, Inc
460 Polaris Parkway, Suite 500
Westerville, OH 43082
USA
Phone:1-888-435-6377
Fax:1-800-741-6046
Email:comments@elmers.com

Emergency Phone Number:
Poison Control Center
1-888-516-2502

For additional product information, access our website at www.elmers.com. To place an order, call 1-800-848-9400.

Section 2 - HAZARDS IDENTIFICATION

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

Flammable Aerosols - Category 1
Aspiration Hazard - Category 1
Skin Corrosion/Irritation - Category 2

Serious Eye Damage/Eye Irritation - Category 2A
Specific Target Organ Toxicity - Single Exposure - Category 3
Hazardous to the Aquatic Environment - Acute - Category 2
Hazardous to the Aquatic Environment - Chronic - Category 2

GHS Label Elements

Symbol(s)

Signal Word
Danger

Hazard Statement(s)
Extremely flammable aerosol
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation. May cause drowsiness or dizziness
Toxic to aquatic life with long lasting effects

Precautionary Statement(s)

Prevention
Keep away from heat/sparks/open flame/hot surfaces - No smoking
Pressurized container: Do not pierce or burn, even after use
Do not spray on an open flame or other ignition sources
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapours/spray
Wash thoroughly after handling
Avoid release to the environment

Response
IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists, get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

IF SWALLOWED: Immediately call a POISON CENTER/doctor
Do NOT induce vomiting
Call a POISON CENTER or doctor if you feel unwell
Specific treatment (see label)

Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
107-83-5	Isohexane	10-20
67-64-1	Acetone	10-20
75-83-2	Neohexane	2.5-10
74-98-6	Propane	10-20
115-10-6	Dimethyl ether	2.5-10
79-29-8	2,3-Dimethylbutane	2.5-10
96-14-0	3-Methylpentane	2.5-10
106-97-8	Butane	2.5-10

The chemical identity and/or percentage of composition is being withheld as a trade secret.

Section 4 - FIRST AID MEASURES

Description of Necessary Measures
Call a POISON CENTER or doctor if you feel unwell.

Inhalation
Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Remove contaminated clothing and wash it before reuse.

Eyes
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

Ingestion
Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Aspiration into the lungs may result in pulmonary edema and pneumonitis.

Most Important Symptoms/Effects

Acute
May cause respiratory irritation, eye irritation, skin irritation.

Delayed
no information on significant adverse effects.

Note to Physicians
Mineral oil, vegetable oil, or petroleum jelly may help soften the bonding between skin surfaces.

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
regular dry powder, alcohol resistant foam, water, carbon dioxide.

Unsuitable Extinguishing Media
None known.

Special Hazards Arising from the Chemical
Contains gas under pressure, may explode when heated.

Advice for firefighters
Vapors are heavier than air. Vapors or gases may ignite at distant ignition sources and flash back. Extremely flammable aerosol.Pressurized container: may burst if heated.

Fire Fighting Measures
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn. In case of fire and/or explosion do not breathe fumes. Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures
Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas. Wear personal protective clothing and equipment, see Section 8. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Methods and Materials for Containment and Cleaning Up
Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. Stay upwind and keep out of low areas. Eliminate all sources of ignition. Stop leak if possible without personal risk. Move containers away from spill to a safe area. Isolate area until gas has dispersed. Collect spillage. Prevent entry into waterways, sewers, basements, or confined areas.

Environmental Precautions
Avoid release to the environment. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling
Pressurized container: Do not pierce or burn, even after use. Do not spray on naked flames or any incandescent material. Do not eat, drink or smoke when using this product. Do not puncture container. Ground any equipment used in handling. Keep away from heat, sparks and flame. Do not cut, puncture, or weld on or near this container. Do not reuse containers. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes and skin. Avoid repeated or prolonged contact. Use only in well-ventilated areas. Wash hands thoroughly after handling. Do not empty into drains.

Conditions for Safe Storage, Including any Incompatibilities
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F
Keep away from incompatible materials. Keep away from heat, sparks and flame. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use. This material can accumulate static charge by flow or agitation and can be ignited by static discharge. Keep out of reach of children.

Incompatible Materials
oxidizing agents

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Isohexane	107-83-5
ACGIH:	500 ppm TWA
	1000 ppm STEL
NIOSH:	100 ppm TWA; 350 mg/m3 TWA (related to Isohexane)
	510 ppm Ceiling 15 min; 1800 mg/m3 Ceiling 15 min (related to Isohexane)
Mexico:	500 ppm TWA LMPE-PPT (except n-Hexane); 1760 mg/m3 TWA LMPE-PPT (except n-Hexane) (related to Hexane, branched and linear)
	1000 ppm STEL [LMPE-CT] (except n-Hexane); 3500 mg/m3 STEL [LMPE-CT] (except n-Hexane) (related to Hexane, branched and linear)
Acetone	67-64-1
ACGIH:	250 ppm TWA
	500 ppm STEL
NIOSH:	250 ppm TWA; 590 mg/m3 TWA
	2500 ppm IDLH (10% LEL)
Europe:	500 ppm TWA; 1210 mg/m3 TWA
OSHA (US):	1000 ppm TWA; 2400 mg/m3 TWA
Mexico:	1000 ppm TWA LMPE-PPT; 2400 mg/m3 TWA LMPE-PPT
	1260 ppm STEL [LMPE-CT]; 3000 mg/m3 STEL [LMPE-CT]
Neohexane	75-83-2
ACGIH:	500 ppm TWA
	1000 ppm STEL
NIOSH:	100 ppm TWA; 350 mg/m3 TWA (related to Isohexane)
	510 ppm Ceiling 15 min; 1800 mg/m3 Ceiling 15 min (related to Isohexane)
Mexico:	500 ppm TWA LMPE-PPT (except n-Hexane); 1760 mg/m3 TWA LMPE-PPT (except n-Hexane) (related to Hexane, branched and linear)
	1000 ppm STEL [LMPE-CT] (except n-Hexane); 3500 mg/m3 STEL [LMPE-CT] (except n-Hexane) (related to Hexane, branched and linear)
Propane	74-98-6
ACGIH:	(See Appendix F: Minimal Oxygen Content)
NIOSH:	1000 ppm TWA; 1800 mg/m3 TWA
	2100 ppm IDLH (10% LEL)
OSHA (US):	1000 ppm TWA; 1800 mg/m3 TWA

Dimethyl ether	115-10-6
Europe:	1000 ppm TWA; 1920 mg/m3 TWA
2,3-Dimethylbutane	79-29-8
ACGIH:	500 ppm TWA
	1000 ppm STEL
NIOSH:	100 ppm TWA; 350 mg/m3 TWA (related to Isohexane)
	510 ppm Ceiling 15 min; 1800 mg/m3 Ceiling 15 min (related to Isohexane)
Mexico:	500 ppm TWA LMPE-PPT (except n-Hexane); 1760 mg/m3 TWA LMPE-PPT (except n-Hexane) (related to Hexane, branched and linear)
	1000 ppm STEL [LMPE-CT] (except n-Hexane); 3500 mg/m3 STEL [LMPE-CT] (except n-Hexane) (related to Hexane, branched and linear)
3-Methylpentane	96-14-0
ACGIH:	500 ppm TWA
	1000 ppm STEL
NIOSH:	100 ppm TWA; 350 mg/m3 TWA (related to Isohexane)
	510 ppm Ceiling 15 min; 1800 mg/m3 Ceiling 15 min (related to Isohexane)
Mexico:	500 ppm TWA LMPE-PPT (except n-Hexane); 1760 mg/m3 TWA LMPE-PPT (except n-Hexane) (related to Hexane, branched and linear)
	1000 ppm STEL [LMPE-CT] (except n-Hexane); 3500 mg/m3 STEL [LMPE-CT] (except n-Hexane) (related to Hexane, branched and linear)
Butane	106-97-8
ACGIH:	1000 ppm STEL
NIOSH:	800 ppm TWA; 1900 mg/m3 TWA
Mexico:	800 ppm TWA LMPE-PPT; 1900 mg/m3 TWA LMPE-PPT

Biological limit value

There are no biological limit values for any of this product's components.

Engineering Controls

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Wear safety glasses with side shields. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Skin Protection
Wear appropriate chemical resistant clothing.

Respiratory Protection
A NIOSH approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Glove Recommendations
Wear protective gloves.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Not available	**Physical State**	gas
Odor	Not available	**Color**	Not available
Odor Threshold	Not available	**pH**	Not available
Melting Point	Not available	**Boiling Point**	Not available
Freezing point	Not available	**Evaporation Rate**	Not available
Boiling Point Range	Not applicable	**Flammability (solid, gas)**	Not available
Autoignition	Not available	**Flash Point**	74.18 °F (23.44 °C estimated)
Lower Explosive Limit	Not available	**Decomposition**	Not available
Upper Explosive Limit	Not available	**Vapor Pressure**	373.4 psig @70 °F (estimated)
Vapor Density (air=1)	Not available	**Specific Gravity (water=1)**	0.645 (estimated)
Water Solubility	Not available	**Partition coefficient: n-octanol/water**	Not available
Viscosity	Not available	**Solubility (Other)**	Not available
Density	Not available		

Section 10 - STABILITY AND REACTIVITY

Reactivity
Under normal conditions, no hazard is expected.

Chemical Stability
Stable under normal conditions of use.

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Conditions to Avoid
Avoid heat, flames, sparks and other sources of ignition. Avoid friction and static electricity.

Incompatible Materials
oxidizing agents,

Hazardous decomposition products
oxides of carbon, hydrocarbons,

Section 11 - TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Inhalation
May be fatal if swallowed and enters airways. Prolonged exposure can cause nausea, dizziness, headache, and narcotic effects. May cause respiratory irritation. May cause drowsiness or dizziness.

Skin Contact
Causes skin irritation.

Eye Contact
Causes serious eye irritation.

Ingestion
May be fatal if swallowed and enters airways.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50
The components of this material have been reviewed in various sources and the following selected endpoints are published:
Isohexane (107-83-5)
Oral LD50 Rat 15000 mg/kg (related to Hexane, branched and linear)
Acetone (67-64-1)
Oral LD50 Rat 5800 mg/kg
Inhalation LC50 Rat 50100 mg/m3 8 h
Neohexane (75-83-2)
Oral LD50 Rat 15000 mg/kg (related to Hexane, branched and linear)
Propane (74-98-6)

Inhalation LC50 Rat 658 mg/L 4 h
Dimethyl ether (115-10-6)
Inhalation LC50 Rat 308.5 mg/L 4 h
2,3-Dimethylbutane (79-29-8)
Oral LD50 Rat 15000 mg/kg (related to Hexane, branched and linear)
3-Methylpentane (96-14-0)
Oral LD50 Rat 15000 mg/kg (related to Hexane, branched and linear)
Butane (106-97-8)
Inhalation LC50 Rat 658 g/m3 4 h

Immediate Effects
Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness.

Delayed Effects
No target organs identified.

Irritation/Corrosivity Data
May cause respiratory irritation, eye irritation, skin irritation.

Respiratory Sensitization
No information available for the product.

Dermal Sensitization
no effects expected.

Component Carcinogenicity

Acetone	67-64-1
ACGIH:	A4 - Not Classifiable as a Human Carcinogen

Germ Cell Mutagenicity
No information available for the product.

Tumorigenic Data
No data available

Reproductive Toxicity
No information available for the product.

Specific Target Organ Toxicity - Single Exposure
respiratory system.

Specific Target Organ Toxicity - Repeated Exposure

Aspiration hazard
Aspiration Hazard. May be fatal if swallowed and enters airways.

Medical Conditions Aggravated by Exposure
No data available.

Section 12 - ECOLOGICAL INFORMATION

Component Analysis - Aquatic Toxicity

Acetone	67-64-1
Fish:	LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static]; LC50 96 h Lepomis macrochirus 8300 mg/L
Invertebrate:	EC50 48 h Daphnia magna 10294 - 17704 mg/L [static] EPA; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose in accordance with all applicable regulations. Do not puncture container.

Section 14 - TRANSPORT INFORMATION

Component Marine Pollutants

This material contains one or more of the following chemicals required by US DOT to be identified as marine pollutants

Component	CAS #	Minimum Concentration
Isohexane	107-83-5	DOT regulated

US DOT Information:
Shipping Name: AEROSOLS
Hazard Class: 2.2
UN/NA #: UN1950
Required Label(s): 2.2, 6.1

TDG Information:
Shipping Name: AEROSOLS
Hazard Class: 2.1
UN#: UN1950
Required Label(s): 2.1

Section 15 - REGULATORY INFORMATION

U.S. Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

Acetone	67-64-1
CERCLA:	5000 lb final RQ; 2270 kg final RQ

SARA Section 311/312 (40 CFR 370 Subparts B and C)
Acute Health: Yes **Chronic Health:** Yes **Fire:** Yes **Pressure:** Yes **Reactivity:** No

U.S. State Regulations

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA
Isohexane	107-83-5	Yes	Yes	Yes	Yes	Yes
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes
Neohexane	75-83-2	Yes	Yes	Yes	Yes	Yes
Propane	74-98-6	No	Yes	Yes	Yes	Yes
Dimethyl ether	115-10-6	No	Yes	Yes	Yes	Yes
2,3-Dimethylbutane	79-29-8	Yes	Yes	Yes	Yes	Yes
3-Methylpentane	96-14-0	Yes	Yes	Yes	No	Yes
Butane	106-97-8	Yes	Yes	Yes	Yes	Yes

Not listed under California Proposition 65

Canadian WHMIS Ingredient Disclosure List (IDL)

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List. The List is composed of chemicals which must be identified on MSDSs if they are included in products which meet WHMIS criteria specified in the Controlled Products Regulations and are present above the threshold limits listed on the IDL

Isohexane	107-83-5
	1 %
Acetone	67-64-1
	1 %
Neohexane	75-83-2
	1 %
2,3-Dimethylbutane	79-29-8
	1 %

3-Methylpentane	96-14-0
	1 % (related to Hexane, branched and linear)
Butane	106-97-8
	1 %

Component Analysis - Inventory

Isohexane (107-83-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Acetone (67-64-1)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Neohexane (75-83-2)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Propane (74-98-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Dimethyl ether (115-10-6)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

2,3-Dimethylbutane (79-29-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

3-Methylpentane (96-14-0)

US	CA	EU	AU	PH					CN	NZ	MX	TW

					JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA				
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Butane (106-97-8)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR - KECI/KECL	KR - TCCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes

Section 16 - OTHER INFORMATION

HMIS Rating

Health: 2 Fire: 4 Reactivity: 1
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

Summary of Changes

New SDS:11/24/2014

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States.

Other Information

Disclaimer:

Supplier gives no warranty whatsoever, including the warranties of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser shall determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental, consequential or any other damages arising out of the use or misuse of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.