



Safety Data Sheet

Issue Date: 14-Nov-2003

Revision Date: 16-Dec-2013

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Diversified Glue Kit

Other means of identification

SDS # DPM-005

Product Code Part No. DGK

Synonyms Zip-Tite.

UN/ID No UN2056

Recommended use of the chemical and restrictions on use

Recommended Use Adhesives.

Details of the supplier of the safety data sheet

Supplier Address

Diversified Products Mfg, Inc.
5523 Baggett Marysville Rd
Oroville, CA 95965

Emergency Telephone Number

Company Phone Number 530-534-3966 Phone

530-534-7404 Fax

Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)

1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Viscous liquid Generally off
amber to neutral in color

Physical State Liquid

Odor Fruity

Classification

Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Flammable Liquids	Category 2

Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed

Signal Word

Warning

Hazard Statements

Causes serious eye irritation
 Suspected of causing cancer
 May cause respiratory irritation
 Highly flammable liquid and vapor

**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Wear eye/face protection
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Keep away from heat/sparks/open flames/hot surfaces. — No smoking
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Use explosion-proof equipment
 Use only non-sparking tools
 Take precautionary measures against static discharge
 Keep cool

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IN CASE OF FIRE: Use CO₂, dry chemical, or alcohol resistant foam to extinguish.

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Unknown Acute Toxicity

25% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms

Zip-Tite.

Chemical Name	CAS No	Weight-%
Tetrahydrofuran	109-99-9	>25
Polyurethane	Proprietary	>25

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice	If exposed or concerned: Get medical advice/attention.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin Contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/ attention.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Seek medical attention.
Ingestion	IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Drink plenty of water. Call a physician or Poison Control Center.

Most important symptoms and effects

Symptoms	Causes serious eye irritation. May cause pain, conjunctivitis of the eyes or burns. May cause mild skin irritation. May cause dermatitis. Inhalation may cause irritation of respiratory tract. Prolonged breathing of vapors may cause nausea, headache, weakness and/or dizziness. Exposure by inhalation may cause giddiness, nausea, and possible narcosis. May be harmful if swallowed. Repeated exposure has been associated with cytolytic hepatitis and fatty degeneration of the liver.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Alcohol resistant foam. Dry chemical. Carbon dioxide (CO₂). BCF (where regulations permit).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Highly flammable liquid and vapor. Vapors are heavier than air and may travel along ground to ignition sources and flash back.

Hazardous Combustion Products Carbon oxides. Irritating vapors.

Sensitivity to Static Discharge Take precautionary measures against static discharge.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required. Ventilate affected area. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.
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Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

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

Methods for Clean-Up Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Use only non-sparking tools.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash face, hands, and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Ground/bond container and receiving equipment. Use non-sparking hand tools and explosion-proof electrical equipment. Take precautionary measures against static discharges. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Ensure containers are properly labeled.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up.

Incompatible Materials Explosive in contact with potassium hydroxide, sodium hydroxide and sodium tetrahydroaluminate, reacts with potassium dioxide 2-aminophenol to form an explosive product; reacts violently with metal halides; forms explosive hydrogen gas with borane or lithium tetrahydroaluminate and reacts vigorously with bromine and calcium hydride + heat. THF is incompatible with sulfinyl chloride and oxidizing materials and may attack some forms of plastic, rubber, and coatings.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Tetrahydrofuran 109-99-9	STEL: 100 ppm TWA: 50 ppm S*	TWA: 200 ppm TWA: 590 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 590 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 735 mg/m ³	IDLH: 2000 ppm TWA: 200 ppm TWA: 590 mg/m ³ STEL: 250 ppm STEL: 735 mg/m ³

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with, contact lenses.
Skin and Body Protection	PVC, neoprene, rubber, or other impervious gloves are recommended to prevent skin contact. Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid		
Appearance	Viscous liquid Generally off amber to neutral in color	Odor	Fruity
Color	Generally off amber to neutral in color	Odor Threshold	Not determined
Property	All property data is based on the component Tetrahydrofuran	Remarks • Method	
pH	5 (20% aqueous)		
Melting Point/Freezing Point	-108 °C / -163 °F		
Boiling Point/Boiling Range	66 °C / 151 °F		
Flash Point	-14.44 °C / 6 °F	CC (closed cup) (based on components)	
Evaporation Rate	8	(butyl acetate = 1)	
Flammability (Solid, Gas)	Liquid-not applicable		
Upper Flammability Limits	11.8% v/v (THF)		
Lower Flammability Limit	2% v/v (THF)		
Vapor Pressure	114 mmHg @ 59°F		
Vapor Density	>1	(Air=1)	
Specific Gravity	0.891	(1=Water)	
Water Solubility	30%	@ 25 °C (77 °F)	
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	321 °C / 609 °F	Lowest Component	
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Not determined		
Oxidizing Properties	Not determined		

10. STABILITY AND REACTIVITY**Reactivity**

Not reactive under normal conditions. Will react with incompatible materials.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing. See below - Incompatible Materials.

Hazardous Polymerization

THF forms explosive (>1%) peroxides when exposed to air or sunlight. It is inhibited to prevent peroxide formation. Hazardous polymerization may occur in the presence of cationic inhibitors such as strong proton acids or selected Lewis acids.

Conditions to Avoid

Heat, ignition sources (flames, sparks), incompatible materials.

Incompatible Materials

Explosive in contact with potassium hydroxide, sodium hydroxide and sodium tetrahydroaluminate, reacts with potassium dioxide 2-aminophenol to form an explosive product; reacts violently with metal halides; forms explosive hydrogen gas with borane or lithium tetrahydroaluminate and reacts vigorously with bromine and calcium hydride + heat. THF is incompatible with sulfinyl chloride and oxidizing materials and may attack some forms of plastic, rubber, and coatings.

Hazardous Decomposition Products

Carbon oxides. Irritating vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Eye Contact	Causes serious eye irritation.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water 7732-18-5	> 90 mL/kg (Rat)	-	-
Tetrahydrofuran 109-99-9	= 1650 mg/kg (Rat)	-	= 53.9 mg/L (Rat) 4 h = 180 mg/L (Rat) 1 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested.

Chemical Name	ACGIH	IARC	NTP	OSHA
Tetrahydrofuran 109-99-9	A3			
Polyurethane		Group 3		

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

STOT - single exposure May cause respiratory irritation.

Numerical measures of toxicity

Not determined

Unknown Acute Toxicity

25% of the mixture consists of ingredient(s) of unknown toxicity.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Tetrahydrofuran 109-99-9		1970 - 2360: 96 h Pimephales promelas mg/L LC50 flow-through 2700 - 3600: 96 h Pimephales promelas mg/L LC50 static		5930: 24 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Tetrahydrofuran 109-99-9	0.45

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

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

Contaminated Packaging

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

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Tetrahydrofuran 109-99-9				U213

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Tetrahydrofuran 109-99-9	Toxic Ignitable

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances. Based on package size, product may be eligible for limited quantity exception.

DOT

UN/ID No	UN2056
Proper Shipping Name	Tetrahydrofuran Mixture
Hazard Class	3
Packing Group	II

IATA

UN/ID No	UN2056
Proper Shipping Name	Tetrahydrofuran Mixture
Hazard Class	3
Packing Group	II

IMDG

UN/ID No	UN2056
Proper Shipping Name	Tetrahydrofuran Mixture
Hazard Class	3
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

TSCA Listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Tetrahydrofuran 109-99-9	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

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

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Tetrahydrofuran 109-99-9	X	X	X

16. OTHER INFORMATION

NFPA**Health Hazards**

2

Flammability

3

Instability

2

Special Hazards

Not determined

HMIS**Health Hazards**

2

Flammability

3

Physical Hazards

2

Personal Protection

Not determined

Issue Date: 14-Nov-2003

Revision Date: 16-Dec-2013

Revision Note: New format

Disclaimer

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

End of Safety Data Sheet