

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : VLP
 Product form : Mixture
 Product code : 60109

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Plasti Dip International, Inc.
 3920 Pheasant Ridge Drive
 Blaine, MN 55449
 Phone - (763) 785-2156

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (US); 703-527-3887 (International)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225
 Acute Tox. 4 (Oral) H302
 Eye Irrit. 2A H319
 Carc. 2 H351
 STOT SE 3 H336
 STOT SE 3 H335
 STOT RE 2 H373

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS02

GHS07

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapour
 H302 - Harmful if swallowed
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H351 - Suspected of causing cancer
 H373 - May cause damage to organs (respiratory system, lungs) through prolonged or repeated exposure

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use
 P202 - Do not handle until all safety precautions have been read and understood
 P210 - Keep away from heat, open flames, sparks. - No smoking
 P233 - Keep container tightly closed
 P240 - Ground/bond container and receiving equipment
 P241 - Use explosion-proof electrical, lighting, ventilating equipment
 P242 - Use only non-sparking tools
 P243 - Take precautionary measures against static discharge
 P260 - Do not breathe mist, vapours
 P264 - Wash hands, forearms and face thoroughly after handling
 P270 - Do not eat, drink or smoke when using this product
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear eye protection, face protection, protective clothing, protective gloves
 P301+P312 - If swallowed: Call a doctor, a POISON CENTER if you feel unwell
 P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
 P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P308+P313 - If exposed or concerned: Get medical advice/attention
 P312 - Call a doctor, a POISON CENTER if you feel unwell
 P314 - Get medical advice/attention if you feel unwell

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P330 - Rinse mouth
P337+P313 - If eye irritation persists: Get medical advice/attention
P370+P378 - In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder, foam to extinguish
P403+P233+P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to licensed waste handling facility

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Tetrahydrofuran	(CAS No) 109-99-9	30 - 60*
Methyl ethyl ketone	(CAS No) 78-93-3	10 - 30*
Polyvinyl chloride	(CAS No) 9002-86-2	3 - 7*
cyclohexanone	(CAS No) 108-94-1	1 - 5*

*In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200), the specific chemical identity or exact weight % has been withheld as a trade secret

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Harmful if swallowed. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness.

Symptoms/injuries after skin contact : May cause skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Harmful if swallowed.

Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : Heating may cause an explosion.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment. Prevent human exposure to fire, fumes, smoke and products of combustion.

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Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Sweep or shovel spills into appropriate container for disposal.

Methods for cleaning up : Eliminate ignition sources. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Wash spill area thoroughly with plenty of soap and water. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety procedures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide good ventilation in process area to prevent formation of vapour. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Keep the container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Tetrahydrofuran (109-99-9)	
ACGIH TWA (ppm)	50
ACGIH STEL (ppm)	100
OSHA PEL (TWA) (mg/m ³)	590
OSHA PEL (TWA) (ppm)	200
OSHA PEL (STEL) (mg/m ³)	735
OSHA PEL (STEL) (ppm)	250
Methyl ethyl ketone (78-93-3)	
ACGIH TWA (ppm)	200
ACGIH STEL (ppm)	300
OSHA PEL (TWA) (mg/m ³)	590
OSHA PEL (TWA) (ppm)	200
OSHA PEL (STEL) (mg/m ³)	885
OSHA PEL (STEL) (ppm)	300

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

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Personal protective equipment : Gloves. Protective goggles. Protective clothing.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. . Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Clear.
Odor	: Strong. Solvent.
Odor Threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: > 1
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 66 - 79 °C (151 - 175 °F)
Flash point	: -14 °C (6 °F) (TCC)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 143 mm Hg (20 °C)
Relative vapour density at 20 °C	: Heavier than air
Relative density	: 0.91 - 0.93 (H ₂ O = 1)
Solubility	: Water: Insoluble
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 1.3 - 11.8 vol %

9.2. Other information

VOC content : 80 - 81 % (6.2 LBS./GAL)

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Heat. Sparks. Open flame. Static electricity. Ignition sources.

10.5. Incompatible materials

Strong acids. Bases. Oxidizing agent. selected amines with alkali metals and halogens.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon oxides (CO, CO₂).

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Tetrahydrofuran (109-99-9)	
LC50 inhalation rat (mg/l)	5309 mg/l/4h

cyclohexanone (108-94-1)	
LD50 oral rat	1544 mg/kg
LD50 dermal rat	947 mg/kg
LC50 inhalation rat (ppm)	8000 ppm/4h

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified.

Vinyl acetate (108-05-4)	
IARC group	2B - Possibly carcinogenic to humans

Vinyl chloride (75-01-4)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : May cause drowsiness or dizziness. May cause respiratory irritation.
Specific target organ toxicity (repeated exposure) : May cause damage to organs (respiratory system, lungs) through prolonged or repeated exposure.
Aspiration hazard : Not classified
Symptoms/injuries after inhalation : May cause respiratory irritation. May cause drowsiness or dizziness.
Symptoms/injuries after skin contact : May cause skin irritation.
Symptoms/injuries after eye contact : Causes serious eye irritation.
Symptoms/injuries after ingestion : Harmful if swallowed.
Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No information available.

12.2. Persistence and degradability

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Persistence and degradability	No information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	No information available.

12.4. Mobility in soil

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Ecology - soil	No information available.

12.5. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1139 Coating solution (Contains: Tetrahydrofuran, Methyl Ethyl Ketone), 3, II

UN-No.(DOT) : 1139

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DOT NA no. : UN1139
 Proper Shipping Name (DOT) : Coating solution
 Contains: Tetrahydrofuran, Methyl Ethyl Ketone
 Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
 Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger
 DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
 DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
 DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard Fire hazard

Tetrahydrofuran (109-99-9)	
CERCLA RQ	1000 lb
Section 313	Not Listed on US SARA Section 313

Methyl ethyl ketone (78-93-3)	
CERCLA RQ	1000 lb
Section 313	Not Listed on US SARA Section 313

cyclohexanone (108-94-1)	
CERCLA RQ	1000 lb
Section 313	Not Listed on US SARA Section 313

15.2. International regulations

No additional information available.

15.3. US State regulations

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Vinyl chloride (75-01-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
Yes	No	No	No	3 µg/day

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Tetrahydrofuran (109-99-9) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Methyl ethyl ketone (78-93-3) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Vinyl acetate (108-05-4) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Vinyl chloride (75-01-4) U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Polyvinyl chloride (9002-86-2) U.S. - New Jersey - Right to Know Hazardous Substance List
cyclohexanone (108-94-1) U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

SECTION 16: Other information

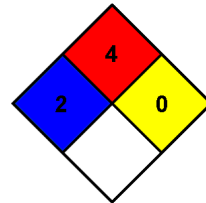
Version 1.0 (28 May 2015)	Created GHS complaint SDS
Version 2.0(28 Jul 2016)	Updated composition/classification

Other information : Author: BCS.

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 4 - Will rapidly or completely vaporize at normal pressure and temperature, or is readily dispersed in air and will burn readily.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2
Flammability : 4
Physical : 0
Personal Protection :

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product