

Section 1. Identification

Product identifier

Product Identity

Permagro LS 24

Other means of identification

Arterial Embalming Chemical, Mixture

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

See Technical Data Sheet.

Details of the supplier of the safety data sheet

Company Name

The Dodge Company, Inc.

9 Progress Road

Billerica, MA 01821

Emergency

CHEMTREC (USA)

(800) 424-9300

Customer Service:

(800) 443-6343, (978) 600-2099

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Flammable Liquid 4;H227

Acute toxicity(oral), category 4;H302

Acute toxicity(dermal), category 4;H312

Acute toxicity(inhalation), category 4;H332

Skin corrosion/irritation category 2;H315

Serious eye damage / eye irritation, category 2;H319

Skin sensitizer category 1;H317

Germ cell mutagenicity, category 2;H341

Carcinogen, category 1B;H350

Specific target organ toxicity, Specific exposure category 3;H335

Combustible Liquid.

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

May cause cancer.

May cause respiratory irritation.

Label elements



Danger

H227 Combustible liquid.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

[Prevention]

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, and other ignition sources - No smoking.

P261 Avoid breathing dust, fume, gas, mist, vapors, spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves, eye protection, and face protection.

[Response]

P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.

P302+352 IF ON SKIN: Wash with plenty of soap and water.

P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313 IF exposed or concerned: Get medical advice or attention.

P312 Call a POISON CENTER, doctor or physician if you feel unwell.

P330 Rinse mouth.

P333+313 If skin irritation or a rash occurs: Get medical advice or attention.

P337+313 If eye irritation persists: Get medical advice or attention.

P362+364 Take off contaminated clothing and wash it before reuse.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]

P403+233 Store in a well ventilated place. Keep container tightly closed.

P403+235 Store in a well ventilated place. Keep cool.

P405 Store locked up.

[Disposal]

P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Formaldehyde CAS Number: 50-00-0 Synonyms: No available information	10 - 30	Carcinogen, category 1B;H350 Germ cell mutagenicity, category 2;H341 Acute toxicity(oral), category 3;H301 Acute toxicity(dermal), category 3;H311 Acute toxicity(inhalation), category 3;H331 Skin corrosion/irritation category 1B;H314 $\geq 25\%$ Skin corrosion/irritation category 2;H315 $5\% \leq C < 25\%$ Skin sensitizer category 1;H317 $>0.2\%$ Specific target organ toxicity, Specific exposure category 3;H335 $\geq 5\%$	-----
1,2-Propanediol CAS Number: 57-55-6 Synonyms: Propanediol, Propylene Glycol, 1,2-Propylene glycol	3 - 7	Not Classified	-----
Methanol CAS Number: 67-56-1 Synonyms: METHYL ALCOHOL, methanol (as methanol)	1 - 5	Flammable Liquid, category 2;H225 Acute toxicity(inhalation), category 3;H331 Acute toxicity(oral), category 3;H301 Acute toxicity(dermal), category 3;H311 Specific target organ toxicity, Specific exposure category 1;H370 $C \geq 10\%$ Specific target organ toxicity, Specific exposure category 2;H371 $3\% \leq C < 10\%$	-----

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention.
Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion

If the person is conscious, have them drink water. Contact a physician immediately. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview

Possible routes of entry are dermal, oral and inhalation. Contains material that can cause target organ damage (mucous membranes, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS)). Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that pre-existing respiratory and skin disorders may be aggravated by exposure. May be fatal or cause blindness if swallowed.

Eyes

Reproductive or genetic defect hazard. Treat symptomatically. See section 2 for further details.

Skin

Causes serious eye irritation.

Ingestion

Harmful in contact with skin. May cause an allergic skin reaction. Causes skin irritation.

Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

Dry chemical, foam, carbon dioxide and water fog.

Special hazards arising from the substance or mixture

Hazardous decomposition: May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons. Incomplete combustion may also produce irritating smoke and toxic and/or irritating gases or fumes.

Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

Avoid breathing dust, fume, gas, mist, vapors, spray.

Advice for fire-fighters

Wear self-contained breathing apparatus to protect from decomposition products.

ERG Guide No. 171

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Methods and material for containment and cleaning up

Vapor is heavier than air and may flow along surface to distant ignition source and flashback.

Neutralize residual product in the spill area using sodium carbonate or sodium bicarbonate.

DO NOT USE COMBUSTIBLE MATERIALS.

Section 7. Handling and storage

Precautions for safe handling

Avoid contact with skin. Avoid contact with eyes. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Launder contaminated clothing before reuse. Avoid environmental contamination.

Store in accordance with the National Fire Protection Association's publication NFPA 30, Flammable and Combustible Liquids Code. 29 CFR 1910.106 applies to the handling, storage, and use of flammable and combustible liquids.

See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Store in a cool dry area, away from heat, sparks and open flame.

Keep containers sealed when not in use.

Store out of direct sunlight.

Incompatible materials: Avoid contact with strong oxidants, strong alkalis, strong mineral acids, phenol and urea.
See section 2 for further details. - [Storage]

Specific end use(s)

No data available.

Section 8. Exposure controls / personal protection

Control parameters

CAS No.	Ingredient	Exposure	
		Source	Value
50-00-0	Formaldehyde	OSHA	0.75 ppm STEL 2 ppm
		ACGIH	0.1 ppm 0.3 ppm
		NIOSH	Ca TWA 0.016 ppm C 0.1 ppm [15-minute]
57-55-6	1,2-Propanediol	OSHA	No Established Limit
		ACGIH	TWA(Aerosol): 10 mg/m ³
		NIOSH	No Established Limit
67-56-1	Methanol	OSHA	200 ppm, 260 mg/m ³
		ACGIH	200 ppm 250 ppm
		NIOSH	TWA 200 ppm (260 mg/m ³) STEL: 250 ppm (325 mg/m ³) [skin]

Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit, they must use the appropriate, certified respirators.

Eyes

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids.

Skin

Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. All parts of the body should be washed after contact. Wear PVC or rubber gloves to keep skin contact to a minimum. Refer to the manufacturer's recommendations regarding the suitability of any gloves used.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State

Liquid

Color

Clear deep red-brown

Odor

Slightly perfumed, with pungent odor.

Melting point / freezing point

N.A

Initial boiling point and boiling range

94-97C 202-206F

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: 7%

Flash Point	Upper Explosive Limit: 73%
Auto-ignition temperature	61-63C 142-146F
Decomposition temperature	Not Available
pH	Not Available
Viscosity (cSt)	8.0-9.5
Solubility in Water	Not Available
Partition coefficient n-octanol/water (Log Kow)	Not Available
Vapor pressure (Pa)	Not Available
Relative Density	1.055-1.065
Vapor Density	Greater than 1
Evaporation rate (Ether = 1)	< 1 (n-Butyl acetate = 1)
VOC Content	99%
Other information	
No other relevant information.	

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under the recommended storage and handling conditions prescribed. At higher temperatures, product may form formic acid and methanol.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Avoid heat and open flame. Exposure to cold may cause precipitation of the polymer, will redissolve upon gentle heating.

Incompatible materials

Avoid contact with strong oxidants, strong alkalis, strong mineral acids, phenol and urea.

Hazardous decomposition products

May form formaldehyde gas, carbon oxides, hydrogen, formic acid and various hydrocarbons. Incomplete combustion may also produce irritating smoke and toxic and/or irritating gases or fumes.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Formaldehyde - (50-00-0)	260.00, Guinea Pig - Category: 3	270.00, Rabbit - Category: 3	No data available.	No data available.	1,000.00, Rat - Category: 3



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1,2-Propanediol - (57-55-6)	22,000.00, Rat - Category: NA	> 2,000.00, Rabbit - Category: NA	No data available.	No data available.	No data available.
Methanol - (67-56-1)	101.10, Rat - Category: 3	301.00, Rabbit - Category: 3	2.10, Rat - Category: 3	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
50-00-0	Formaldehyde	OSHA	Regulated Carcinogen: Yes;
		NTP	Known: Yes; Suspected: Yes;
		IARC	Group 1: Yes; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	A1
57-55-6	1,2-Propanediol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
67-56-1	Methanol	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	4	Harmful in contact with skin.
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	2	Suspected of causing genetic defects.
Carcinogenicity	1B	May cause cancer.
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry: No data available.

Symptoms and effects, both acute and delayed:

Possible routes of entry are dermal, oral and inhalation. Contains material that can cause target organ damage (mucous membranes, gastrointestinal tract, upper respiratory tract, skin, eyes, central nervous system (CNS)). Some reports suggest that formaldehyde may cause respiratory sensitization, such as asthma, and that pre-existing respiratory and skin disorders may be aggravated by exposure. May be fatal or cause blindness if swallowed. Reproductive or genetic defect hazard. Treat symptomatically.

Eyes

Causes serious eye irritation.

Skin

Harmful in contact with skin. May cause an allergic skin reaction. Causes skin irritation.

Ingestion

Harmful if swallowed.

Section 12. Ecological information

Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Formaldehyde - (50-00-0)	1.41, Oncorhynchus mykiss	5.80, Daphnia pulex	No data available.
1,2-Propanediol - (57-55-6)	40,613.00, Salmo gairdneri	18,340.00, Ceriodaphnia dubia	24,200.00, Raphidocelis subcapitata
Methanol - (67-56-1)	15,400.00, Lepomis macrochirus	> 10,000.00, Daphnia magna	22,000.00, Pseudokirchneriella subcapitata

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

Not Available

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No data available.

Section 13. Disposal considerations

Waste treatment methods

Waste should not be released to sewers. Observe all federal, state, and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	UN3082	UN3082	UN3082
UN proper shipping name	UN3082, Environmentally hazardous substances, liquid, n.o.s., (Contains Formeldehyde), 9, III	Environmentally hazardous substances, liquid, n.o.s., (Contains Formeldehyde)	Environmentally hazardous substances, liquid, n.o.s., (Contains Formeldehyde)
Transport hazard class(es)	DOT Hazard Class: 9 Sub Class: Not Applicable	IMDG: 9 Sub Class: Not Applicable	Air Class: 9 Sub Class: Not Applicable
Packing group	III	III	III

Environmental hazards

Marine Pollutant: No;

Special precautions for user

Not Applicable

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000057-55-6	1,2-Propanediol	Yes		ACTIVE
0000050-00-0	Formaldehyde	Yes		ACTIVE
0000067-56-1	Methanol	Yes		ACTIVE

EPCRA 302 Extremely Hazardous:

Formaldehyde

EPCRA 313 Toxic Chemicals:

Formaldehyde

Methanol

Proposition 65 - Carcinogens (>0.0%):

Formaldehyde

Proposition 65 - Developmental Toxins (>0.0%):

Methanol

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:



WARNING: This product can expose you to chemicals including [Formaldehyde], which is known to the State of California to cause cancer, and [Methanol], which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Section 16. Other information

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.



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The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H350 May cause cancer.

H370 Causes damage to organs.

H371 May cause damage to organs.

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