

Section 1. Identification

Product identifier

Product Identity

Edemaco

Other means of identification

Arterial Co-Injection Chemical

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, category 1;H224

Extremely flammable liquid and vapor.

Acute toxicity(oral), category 4;H302

Harmful if swallowed.

Acute toxicity(inhalation), category 3;H331

Toxic if inhaled.

Skin corrosion/irritation category 1B;H314

Causes severe skin burns and eye damage.

Skin sensitizer category 1;H317

May cause an allergic skin reaction.

Respiratory sensitization, category 1;H334

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Specific target organ toxicity, Specific exposure category 1;H370

Causes damage to organs. Specific Target Organs: (central nervous system, eyes)

Specific target organ toxicity, Specific exposure category 3;H335

May cause respiratory irritation.

Aquatic toxicity (acute), category 2;H401

Toxic to aquatic life.

Aquatic toxicity (chronic), category 2;H411

Toxic to aquatic life with long lasting effects.

Label elements



Danger

H224 Extremely flammable liquid and vapor.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H370 Causes damage to organs.

H411 Toxic to aquatic life with long lasting effects.

[Prevention]

P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

P233 Keep container tightly closed.

P240 Ground, bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating, light, equipment.

P242 Use only non-sparking tools.

P243 Take action to prevent static discharges.

P260 Do not breathe dust, fume, mist, vapors or 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.

P273 Avoid release to the environment.

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

P284 In case of inadequate ventilation, wear respiratory protection.

[Response]

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

P302+312 IF ON SKIN: Call a POISON CENTER or doctor , physician if you feel unwell

P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.

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+311 If exposed or concerned: Call a POISON CENTER, doctor or physician.

P310 Immediately call a POISON CENTER, doctor or physician.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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

P342+311 If experiencing respiratory symptoms: Call a POISON CENTER, doctor or physician.

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

P363 Wash contaminated clothing before reuse.

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

P391 Collect spillage.

[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
Glutaraldehyde CAS Number: 111-30-8 Synonyms: 1,5-Pentanedial, Aldehyd glutarowy, Pentanedial, Glutaral	10 - 30	Acute toxicity(inhalation), category 2;H330 Acute toxicity(oral), category 3;H301 Specific target organ toxicity, Specific exposure category 3;H335: 0.5 % ≤ C < 5 % Skin corrosion/irritation category 1B;H314 Respiratory sensitization, category 1;H334 Skin sensitizer category 1A;H317 Aquatic toxicity (acute), category 1;H400 Aquatic toxicity (chronic), category 1;H410	-----
Methanol CAS Number: 67-56-1 Synonyms: METHYL ALCOHOL, methanol (as methanol)	10 - 30	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 ≥ 10 % Specific target organ toxicity, Specific exposure category 2;H371 3 % ≤ C < 10 %	-----
Sodium citrate CAS Number: 68-04-2 Synonyms: No available information	3 - 7	Not Classified	-----

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

No specific symptom data available.
Treat symptomatically. See section 2 for further details.

Skin

May be harmful in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.

Ingestion

Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO², powder, water spray.

Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: Oxides of carbon and nitrogen.

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

Keep container tightly closed.

Ground, bond container and receiving equipment.

Use explosion-proof electrical, ventilating, light, equipment.

Use only non-sparking tools.

Take action to prevent static discharges.

Do not breathe dust, fume, mist, vapors or spray.

Advice for fire-fighters

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

ERG Guide No. 128

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.

Spread an inert absorbent on the spill and place in a suitable, properly labeled container for recovery or disposal.

Flush area with large quantities of water.

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.

See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Incompatible materials: Strong oxidizing agents, strong acids and alkalis

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
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]
68-04-2	Sodium citrate	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
111-30-8	Glutaraldehyde	OSHA	No Established Limit
		ACGIH	C 0.05 ppm
		NIOSH	C 0.2 ppm (0.8 mg/m ³)

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

No data available.

Odor

No data available.

Melting point / freezing point

Not Available

Initial boiling point and boiling range

179 - 183F (82 - 84C)

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: Water Solution

Upper Explosive Limit: Water Solution



Safety Data Sheet Edemaco

Revision
Date: 09/21/2024

Flash Point	88 - 92F (31-33C)
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
pH	7.4 - 7.6
Viscosity (cSt)	Not Available
Solubility in Water	Not Available
Partition coefficient n-octanol/water (Log Kow)	Not Available
Vapor pressure (Pa)	Unknown
Relative Density	1.045 - 1.055
Vapor Density	Greater than 1 (Air = 1)
Evaporation rate (Ether = 1)	< 1 (n-Butyl acetate = 1)
VOC Content	85%
Other information	
No other relevant information.	

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Avoid prolonged exposure to heat and/or light.

Incompatible materials

Strong oxidizing agents, strong acids and alkalis

Hazardous decomposition products

Oxides of carbon and nitrogen.

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
Glutaraldehyde - (111-30-8)	246.00, Rat - Category: 3	>2,000.00, Rabbit - Category: 5	No data available.	0.48, Rat - Category: 2	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.
Sodium citrate - (68-04-2)	5,400.00, Mouse - Category: NA	> 2,000.00, Rat - Category: NA	No data available.	No data available.	No data available.



Safety Data Sheet Edemaco

Revision
Date: 09/21/2024

Carcinogen Data

CAS No.	Ingredient	Source	Value
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
68-04-2	Sodium citrate	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
111-30-8	Glutaraldehyde	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	A4

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	3	Toxic if inhaled.
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	1	Causes damage to organs.
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:

No specific symptom data available.

Treat symptomatically.

Skin

May be harmful in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.

Ingestion

Harmful if swallowed.

Section 12. Ecological information

Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Glutaraldehyde - (111-30-8)	10.00, Oncorhynchus mykiss	29.73, Daphnia magna	1.20, Desmodesmus subspicatus
Methanol - (67-56-1)	15,400.00, Lepomis macrochirus	> 10,000.00, Daphnia magna	22,000.00, Pseudokirchneriella subcapitata
Sodium citrate - (68-04-2)	No data available.	> 50.00, Dreissena polymorpha	No data available.

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	UN1993	UN1993	UN1993
UN proper shipping name	UN1993, Flammable liquids, n.o.s., (Methanol), 3, III	Flammable liquids, n.o.s., (Methanol)	Flammable liquids, n.o.s., (Methanol)
Transport hazard class(es)	DOT Hazard Class: 3 Sub Class: Not Applicable	IMDG: 3 Sub Class: Not Applicable	Air Class: Not Applicable Sub Class: Not Applicable
Packing group	I	I	I
Environmental hazards	Marine Pollutant: Yes; (Glutaraldehyde)		

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
0000111-30-8	Glutaraldehyde	Yes		ACTIVE
0000067-56-1	Methanol	Yes		ACTIVE
0000068-04-2	Sodium citrate	Yes		ACTIVE

EPCRA 302 Extremely Hazardous:

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

EPCRA 313 Toxic Chemicals:

Methanol

Proposition 65 - Carcinogens (>0.0%):

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

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 [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

Revision Date 09/21/2024

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.

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.



Safety Data Sheet Edemaco

Revision
Date: 09/21/2024

H317 May cause an allergic skin reaction.

H330 Fatal if inhaled.

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H370 Causes damage to organs.

H371 May cause damage to organs.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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