

MATERIAL SAFETY DATA SHEET

Emulsion Seed x200

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Revision Date 03/12/2013 Print Date 3/12/2013

1. PRODUCT AND COMPANY IDENTIFICATION

POLYONE CORPORATION

33587 Walker Road, Avon Lake, OH 44012

Telephone : 1 (440) 930-1000 or 1 (866) POLYONE

Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure

number or accident).

Product name : Emulsion Seed x200

Product code : SR20000004

Chemical Name : Ethene, chloro-, homopolymer emulsion with up to 2% residual vinyl

chloride monomer

CAS-No. : Mixture

Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight percent
Vinyl chloride monomer	75-01-4	1 - 5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

This mixture has not been evaluated as a whole. All ingredients are bound and potential for hazardous exposure as shipped is minimal. However, some vapors may be released upon heating or processing. The end-user (fabricator) must take the necessary precautions (mechanical ventilation, respiratory protection, etc.) to protect employees from exposure. See sections 8 and 11 for special precautions. May emit Hydrogen Chloride (HCl) or Carbon Monoxide (CO) under fire conditions.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Ingestion

Acute exposure

Inhalation : Resin particles, like other inert materials, can be mechanically

irritating. At process temperatures, product emissions may cause

irritation.

Ingestion : No adverse health effects are anticipated.

Eyes : Resin particles, like other inert materials, can be mechanically

irritating. At process temperatures, product emissions may cause

irritation.

Skin : Experience shows no unusual dermatitis hazard from routine handling.



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Chronic exposure : Refer to Section 11 for Toxicological Information.

Medical Conditions Aggravated by Exposure: : None known.

4. FIRST AID MEASURES

Inhalation : Move to fresh air in case of accidental inhalation of dust or fumes

from overheating or combustion. When symptoms persist or in all

cases of doubt seek medical advice.

Ingestion : Not an anticipated hazard.

Eyes : Rinse immediately with plenty of water, also under the eyelids, for at

least 15 minutes. If eye irritation persists, seek medical attention.

Skin : Wash off with soap and plenty of water. If skin irritation persists

seek medical attention.

5. FIREFIGHTING MEASURES

Flash point : 736 °F ASTM D1929

Flammable Limits

Upper explosion limit : not applicable Lower explosion limit : not applicable Auto-ignition temperature : not applicable

Suitable extinguishing media : Water spray, Dry powder, Foam, Carbon dioxide (CO2).

Special Fire Fighting

Procedures

Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne

contaminants.

Unusual Fire/Explosion

Hazards

The solid polymer can only be burned with difficulty. Fires will tend to self-extinguish in the absence of a substantial external source of heat or flame. Hydrogen Chloride (HCl) is generated upon product combustion. Prompt cleaning of surfaces with water based detergents is indicated after a fire to minimize corrosive attack. Vinyl resin dust has a very low tendency to explode. The minimum ignition energy for vinyl resin dust clouds is much higher than that of natural materials such as starch and flour or of other plastic materials. However, as with any powder material, care should be taken to avoid creation of dust clouds and to minimize ignition sources. Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx),

other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear appropriate personal protection during cleanup, such as

impervious gloves, boots and coveralls. Material can create slippery



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conditions.

Environmental precautions : Should not be released into the environment. The product should not

be allowed to enter drains, water courses or the soil.

Methods for cleaning up : Clean up promptly by sweeping or vacuum. Package all material in

appropriate container for disposal.

7. HANDLING AND STORAGE

Handling : Take measures to prevent the build up of static electricity. Use only

in area provided with appropriate exhaust ventilation. Material can

create slippery conditions.

Storage : Keep containers dry and tightly closed to avoid moisture absorption

and contamination.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection : Under normal handling conditions a respirator may not be required.

If dusty conditions occur wear appropriate respiratory protection.

Eye/Face Protection : Safety glasses with side-shields

Hand protection : Protective gloves

Skin and body protection : Long sleeved clothing

Additional Protective

Measures

Safety shoes

General Hygiene : Handle in accordance with good industrial hygiene and safety
Considerations practice. Wash hands before breaks and at the end of workday. This

product may contain residual vinyl chloride monomer (VCM) (CAS number 75-01-4) below 8.5 ppm (0.00085%). It is unlikely, under normal working conditions with adequate ventilation, that the exposure limits will be exceeded for residual VCM. However, the user should take the necessary precautions (e.g. mechanical ventilation, local exhaust ventilation, air-monitoring, respiratory protection, etc.) to ensure airborne levels of any vapors including

VCM or dusts that may be released during heating or processing are

below regulated levels.

Engineering measures : Heat only in areas with appropriate exhaust ventilation. Provide

appropriate exhaust ventilation at machinery.

Exposure limit(s)



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Components	Value	Exposure time	Exposure type	List:
Vinyl chloride	1 ppm	Time Weighted Average		ACGIH
monomer		(TWA):		
	1 ppm	Time Weighted Average (TWA):		OSHA
	5 ppm	Short Term Exposure Limit (STEL):		OSHA
	0.5 ppm	OSHA Action level:		OSHA
	1.0 ppm	Time Weighted Average (TWA):		OSHA Z1A
	5.0 ppm	Short Term Exposure Limit (STEL):		OSHA Z1A
	5 ppm 13 mg/m3	Time Weighted Average (TWA):		MX OEL

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid Evaporation rate : Not applicable

Appearance : powder, granular Specific Gravity : 1.4

Colour : NOT APPLICABLE Bulk density 20 to 25 lbs/ft3 : very faint Odour Vapour pressure not applicable : Not established Melting point/range Vapour density not applicable Boiling Point: not applicable not applicable pН

Water solubility : insoluble

10. STABILITY AND REACTIVITY

Stability : The product is stable if stored and handled as prescribed.

Hazardous Polymerization : Will not occur.

Conditions to avoid : To avoid thermal decomposition, do not overheat. Keep away from

oxidizing agents and open flame.

Incompatible Materials : Avoid contact with strong oxidizers. Also, avoid contact with acetal

or acetal copolymers and with amine containing materials during processing. At processing conditions, these materials are mutually destructive and involve rapid degradation. Thoroughly purge and mechanically clean processing equipment to avoid even trace quantities of these materials from coming in contact with each other.

Prevent cross contamination of feedstocks.

Hazardous decomposition

products

: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), other hazardous materials, and smoke are all possible.

Prolonged heating (approximately 30 minutes or more) above 392 $^{\circ}$ F (200 $^{\circ}$ C) or short term heating at 482 $^{\circ}$ F (250 $^{\circ}$ C) may result in product decomposition and evolution of carbon monoxide and

hydrogen chloride.

11. TOXICOLOGICAL INFORMATION



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This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

CAS-No.	Chemical Name	Effect	Target Organ
75-01-4	Vinyl chloride monomer	Systemic effects	Liver, blood and blood
			forming system, central
			nervous system (CNS),
			reproductive system.

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

CAS-No.	Chemical Name	Route	Value	Species
75-01-4	Vinyl chloride monomer	LC50	282.42 gm/m3	rat
		LC50	212.7 gm/m3	mouse
		LC50	430.84 gm/m3	guinea pig
		Oral LD50	500 mg/kg	rat

Carcinogenicity

This product contains the following components which, in their pure form, have the following carcinogenicity data:

CAS-No.	Chemical Name	OSHA	IARC	NTP
75-01-4	Vinyl chloride monomer	yes	1	no

IARC Carcinogen Classifications:

- $\boldsymbol{1}$ The component is carcinogenic to humans.
- 2A The component is probably carcinogenic to humans.
- 2B The component is possibly carcinogenic to humans.

NTP Carcinogen Classifications:

- 1 The component is known to be a human carcinogen.
- 2 The component is reasonably anticipated to be a human carcinogen.

12. ECOLOGICAL INFORMATION

Persistence and degradability : Not readily biodegradable.

Environmental Toxicity : Adverse ecological impact is not known or expected under normal

use.

Bioaccumulation Potential : Does not bioaccumulate.

Additional advice : no data available

13. DISPOSAL CONSIDERATIONS



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Product : Where possible recycling is preferred to disposal or incineration. The

generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

Contaminated packaging : Recycling is preferred when possible. The generator of waste

material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal,

state/provincial and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Not regulated for transportation.

ICAO/IATA : Not regulated for transportation.

IMO/IMDG (maritime) : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.

TSCA Status : All components of this product are listed on or exempt from the

TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

Chemical Name	CAS-No.	RQ for component	RQ for
			Mixture/Product
Vinyl chloride	75-01-4	001 lbs	50 LB
monomer			

California Proposition : 65

: WARNING! This product contains a chemical known to the State of

California to cause cancer.

SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:



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Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

Chemical Name	CAS-No.	Weight percent	
VINYL CHLORIDE	75-01-4	1.00 - 5.00	

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

Chemical Name	CAS-No.	Weight percent	NPRI ID#
Vinyl chloride monomer	75-01-4	1.00 - 5.00	

WHMIS Classification : D2A

WHMIS Ingredient Disclosure List

CAS-No. 75-01-4

DSL : All components of this product are on the Canadian Domestic

Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Listed

China IECS : Listed

Europe EINECS : Listed

Japan ENCS : Listed

Korea KECI : Listed

Philippines PICCS : Listed

16. OTHER INFORMATION

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.