

1. Identification

Product identifier

Other means of identification **Z-30 FG Defoamer**
SDS Number 320042-05

Recommended use Anti-foaming agent.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name Anderson Chemical Company

Address 325 South Davis Avenue
Litchfield, MN 55355

Main Telephone Number 1-320-693-2477

Emergency #: CHEMTREC 1-800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Not available.

Response Not available.

Storage Store away from incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in accordance with local, regional, national, and international regulations.

Disposal Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 37.973% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 37.973% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. FDA Ingredients: water (7732-18-5), polydimethylsiloxane (63148-62-9), sorbitan monostearate (1338-41-6), polyoxyethylene monostearate (9004-99-3), silica +dimethylsiloxane (67762-90-7), propylene glycol (57-55-6), xanthan gum (11138-66-2), sorbic acid (110-44-1), oleic acid (112-80-1).

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Propylene Glycol		57-55-6	1 - < 3
Other components below reportable levels			90 - 100

Residuals

Chemical name	Common name and synonyms	CAS number	%
1,4-dioxane		123-91-1	<0.0003

Residuals

Chemical name	Common name and synonyms	CAS number	%
Ethylene Oxide		75-21-8	<0.00003

Composition comments Occupational Exposure Limits for residuals are listed in Section 8.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate personal protective equipment. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for clean-up	Absorb/clean with appropriate and compatible material. Stop flow of material if without risk. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Not available.
Conditions for safe storage, including any incompatibilities	Do not allow product to freeze. Freezing will affect the physical condition and may damage material. Store in a cool, dry place.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Residuals	Type	Value
Ethylene Oxide (CAS 75-21-8)	STEL	5 ppm
	TWA	1 ppm

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Residuals	Type	Value
1,4-dioxane (CAS 123-91-1)	PEL	360 mg/m3

US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

Residuals	Type	Value
		100 ppm

US. ACGIH Threshold Limit Values (TLV)

Residuals	Type	Value
1,4-dioxane (CAS 123-91-1)	TWA	20 ppm
Ethylene Oxide (CAS 75-21-8)	TWA	1 ppm

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Residuals	Type	Value
1,4-dioxane (CAS 123-91-1)	IDLH	2 % 500 ppm
Ethylene Oxide (CAS 75-21-8)	IDLH	3 % 800 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Residuals	Type	Value
1,4-dioxane (CAS 123-91-1)	Ceiling	3.6 mg/m3 1 ppm
Ethylene Oxide (CAS 75-21-8)	Ceiling	9 mg/m3 5 ppm
	TWA	0.18 mg/m3 0.1 ppm

US. OARS. Workplace Environmental Exposure Level (WEEL) Guide

Components	Type	Value	Form
Propylene Glycol (CAS 57-55-6)	TWA	10 mg/m3	Aerosol.

Biological limit values

ACGIH Biological Exposure Indices (BEI)

Residuals	Value	Determinant	Specimen	Sampling Time
Ethylene Oxide (CAS 75-21-8)	5 µg/g	S-(2-hydroxyethyl) mercapturic acid (HEMA)	Creatinine in urine	*
	5000 pmol/g	N-(2-hydroxyethyl)-valine (HEV) hemoglobin adducts	Hemoglobin adducts	*

* - For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

1,4-dioxane (CAS 123-91-1) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

1,4-dioxane (CAS 123-91-1) Skin designation applies.

US - Tennessee OELs: Skin designation

1,4-dioxane (CAS 123-91-1) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

1,4-dioxane (CAS 123-91-1) Danger of cutaneous absorption
Ethylene Oxide (CAS 75-21-8) Danger of cutaneous absorption

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

1,4-dioxane (CAS 123-91-1) Can be absorbed through the skin.

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General	It is recommended that users of this product perform a risk assessment to determine the appropriate PPE.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Cream.
Physical state	Liquid.
Form	Liquid.
Color	White.
Odor	Mild.
Odor threshold	Not available.
pH	> 4 - < 7 (1% in 50:50 IPA:H ₂ O)
Melting point/freezing point	-43.66 °F (-42.04 °C) estimated
Initial boiling point and boiling range	321.2 °F (160.67 °C) estimated
Flash point	>212.0 °F (>100.0 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Dispersible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	749.87 °F (398.82 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Flammability class	Combustible IIIB estimated
Flash point class	Non-Flammable
Oxidizing properties	Not oxidizing.
Specific gravity	> 0.99 - < 1.02 @ 25°C

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Acids. Bases, alkalis (organic).

Hazardous decomposition products Carbon oxides. Formaldehyde.

11. Toxicological information

Information on likely routes of exposure

Inhalation Prolonged inhalation may be harmful.
Skin contact No adverse effects due to skin contact are expected.
Eye contact Direct contact with eyes may cause temporary irritation.
Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity Not known.

Product	Species	Test Results
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Z-30 Defoamer

Acute

Dermal

LD50	Guinea pig	11111111 mg/kg
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Oral

LD50	Rat	313 g/kg
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Components	Species	Test Results
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Propylene Glycol (CAS 57-55-6)

Acute

Dermal

LD50	Rabbit	20800 mg/kg
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Oral

LD50	Rat	21000 - 33700 mg/kg
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Residuals	Species	Test Results
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1,4-dioxane (CAS 123-91-1)

Acute

Dermal

LD50	Rabbit	7600 mg/kg
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Oral

LD50	Rabbit	2000 mg/kg
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Ethylene Oxide (CAS 75-21-8)

Acute

Inhalation

LC50	Rat	1462 ppm, 4 Hours
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Oral

LD50	Rat	72 mg/kg
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* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Due to partial or complete lack of data the classification is not possible.

Serious eye damage/eye irritation Due to partial or complete lack of data the classification is not possible.

Respiratory or skin sensitization

Respiratory sensitization Due to partial or complete lack of data the classification is not possible.

Skin sensitization Due to partial or complete lack of data the classification is not possible.

Germ cell mutagenicity Due to partial or complete lack of data the classification is not possible.

Carcinogenicity Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity

1,4-dioxane (CAS 123-91-1)	2B Possibly carcinogenic to humans.
Ethylene Oxide (CAS 75-21-8)	1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Ethylene Oxide (CAS 75-21-8) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

1,4-dioxane (CAS 123-91-1) Reasonably Anticipated to be a Human Carcinogen.

Ethylene Oxide (CAS 75-21-8) Known To Be Human Carcinogen.

Reproductive toxicity Due to partial or complete lack of data the classification is not possible.**Specific target organ toxicity - single exposure** Due to partial or complete lack of data the classification is not possible.**Specific target organ toxicity - repeated exposure** Due to partial or complete lack of data the classification is not possible.**Aspiration hazard** Due to partial or complete lack of data the classification is not possible.**Chronic effects** Prolonged inhalation may be harmful.**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.

Product	Species	Test Results
Z-30 Defoamer		
Aquatic		
Fish	LC50	Fish 120571.7422 mg/l, 96 hours estimated
<i>Acute</i>		
Algae	EC50	Algae 12050 mg/l, 72 hours estimated
Crustacea	EC50	Daphnia 145651.0938 mg/l, 48 hours estimated
Fish	LC50	Fish 4.2047 mg/l, 96 hours estimated
Components		
Species		
Test Results		
Propylene Glycol (CAS 57-55-6)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50	Water flea (Daphnia magna) > 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas) 710 mg/l, 96 hours
Residuals		
Species		
Test Results		
1,4-dioxane (CAS 123-91-1)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Inland silverside (Menidia beryllina) 6700 mg/l, 96 hours
Ethylene Oxide (CAS 75-21-8)		
Aquatic		
<i>Acute</i>		
Fish	LC50	Fathead minnow (Pimephales promelas) 73 - 96 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.**Bioaccumulative potential****Partition coefficient n-octanol / water (log Kow)**

Propylene Glycol -0.92

Mobility in soil No data available.**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.**13. Disposal considerations****Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site.**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information**DOT**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

15. Regulatory information**US federal regulations**

All components are on the U.S. EPA TSCA Inventory List. This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

1,4-dioxane (CAS 123-91-1) Listed.
Ethylene Oxide (CAS 75-21-8) Listed.

SARA 304 Emergency release notification

Ethylene Oxide (CAS 75-21-8) 10 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Ethylene Oxide (CAS 75-21-8) Cancer
Reproductive toxicity
Mutagenicity
Central nervous system
Skin sensitization
Skin irritation
Eye irritation
respiratory tract irritation
Acute toxicity
Flammability

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Ethylene Oxide	75-21-8	10	1000		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

US state regulations**California Proposition 65**

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

California Proposition 65 - CRT: Listed date/Carcinogenic substance

1,4-dioxane (CAS 123-91-1) Listed: January 1, 1988
Ethylene Oxide (CAS 75-21-8) Listed: July 1, 1987

California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene Oxide (CAS 75-21-8) Listed: August 7, 2009

California Proposition 65 - CRT: Listed date/Female reproductive toxin

Ethylene Oxide (CAS 75-21-8)

Listed: February 27, 1987

California Proposition 65 - CRT: Listed date/Male reproductive toxin

Ethylene Oxide (CAS 75-21-8)

Listed: August 7, 2009

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 07-17-2013**Revision date** 09-19-2024**Version #** 15**Material ID** 1933**HMIS® ratings** Health: 1
Flammability: 1
Physical hazard: 0**NFPA ratings** Health: 1
Flammability: 1
Instability: 0**Disclaimer** The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Anderson Chemical Company, provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your information, consideration, and investigation. You should satisfy yourself that you have all current data relevant to your particular use. Anderson Chemical Company, knows of no medical condition, other than those noted on this Safety Data Sheet, which are generally recognized as being aggravated by exposure to this product.**Revision information** New product