

Safety Data Sheet

Printing date 11/08/2018

Version Number 1.0

Reviewed on 11/08/2018

1 Identification

Product identifier

Trade name: *Polarset*

SDS ID Number: 60147

Relevant identified uses of the substance or mixture, and uses advised against:
Specialty construction product. Not intended for other uses.

Product category Concrete Admixture

Details of the supplier of the safety data sheet

Manufacturer/Supplier:

GCP Applied Technologies
62 Whittemore Avenue
Cambridge, MA 02140 USA

GCP Canada, Inc.
294 Clements Road W.
Ajax, Ontario L1S 3C6 Canada

Information department:

Environmental Health & Safety
USA: +1-617-876-1400 (24 hours)
+1-800-354-5414 (8AM - 5PM) Not functional within Massachusetts
CAN: 1-905-683-8561 (24 hours)
Email address: msds.gcp@gcpat.com

Transport Emergency: Chemtrec +1-800-424-9300 (24 hours)

2 Hazard(s) identification

Classification of the substance or mixture

Harmful if swallowed.

Causes serious eye damage.

May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Label elements: The product is classified and labeled according to the Globally Harmonized System (GHS)

Hazard pictograms



GHS05 GHS07 GHS08

Danger

Hazard statements

Harmful if swallowed.

Causes serious eye damage.

May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

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

Wear eye protection / face protection.

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If swallowed: Call a poison center/doctor if you feel unwell.

Rinse mouth.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

NFPA ratings (scale 0 - 4)



Health = 3

Fire = 1

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = *3

Flammability = 1

Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixture

Description: Mixture of the hazardous substance(s) listed below with additional nonhazardous ingredients.

Hazardous components:

10124-37-5	Calcium nitrate	15-<22%
13780-06-8	Calcium nitrite	15-<22%
111-46-6	Diethylene glycol	3-<5%
105-59-9	2,2'-(methylimino)diethanol	1-<3%

Additional information: Non-hazardous ingredients may be listed in Section 15; Right-To-Know disclosure.

4 First-aid measures

Description of first aid measures

General information: Get medical advice/attention if you feel unwell.

After inhalation: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

After skin contact:

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

After eye contact: Rinse cautiously with water for several minutes.

After swallowing:

Rinse mouth.

Do NOT induce vomiting.

Immediately call a doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed Harmful if swallowed.

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Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

This material, if dried to a solid powder-like form, will become an oxidizer, which may provide oxygen to combustible materials.

Special hazards arising from the substance or mixture

Combustion products may include toxic gases such as carbon monoxide and smoke.

Advice for firefighters

Protective equipment: Wear personal protective equipment.

Additional information Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Avoid contact with eyes.

Environmental precautions:

Avoid release to the environment.

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Use neutralizing agent.

Dispose contaminated material as waste according to section 13 of the SDS.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling:

Precautions for safe handling

Avoid contact with eyes, skin and clothing.

Do not take internally.

Practice good personal hygiene to avoid ingestion.

Use only with adequate ventilation.

Wash clothing before reuse.

FOR PROFESSIONAL USE ONLY. KEEP OUT OF CHILDREN'S REACH.

Ensure good interior ventilation.

Do not mix directly with acidic materials. Do not mix directly with other admixtures. Hazardous gas may form.

Store in original containers.

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Conditions for safe storage, including any incompatibilities

Storage:

Information about storage in one common storage facility: No special measures required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from frost.

Store in cool, dry conditions in well sealed original receptacles.

Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see item 7.

Control parameters

Components with limit values that require monitoring at the workplace:

111-46-6 Diethylene glycol

WEEL (USA) | Long-term value: 10 mg/m³

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Do not add amines to this product. Cancer-causing nitrosamines may be formed. Direct contact with other admixtures, washwater and any other material causing the pH to fall below specification can result in the formation of NO_x gas creating a hazardous situation. Nitric oxide (NO) is a colorless, odorless gas. Nitrogen dioxide (NO₂) is a reddish-brown gas with a highly pungent, bleach-like odor. Exposure can cause irritation to eyes and respiratory system and effect the central nervous and cardiovascular systems. Severe overexposure can be fatal. This hazard does not exist when mixed with other admixtures in concrete.

Breathing equipment:

Control exposure to ingredients with workplace control parameters if mentioned above. If no ingredients are listed, respiratory protection is generally not required.

If exposure limits are listed and may be exceeded, use approved respiratory protective equipment and filter type appropriate for the listed ingredients. (NIOSH, CEN, etc.).

Protection of hands: Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

Material of gloves Nitrile rubber.

Eye protection:



Safety glasses with side shield protection.



A face shield should also be worn if there is potential exposure to splash or spray.

Body protection:

Use personal protective equipment as required.

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Take off contaminated clothing.

* **9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Liquid
Color:	Blue/green
Odor:	Mild paint-like odor
Odor threshold:	Not applicable.

pH-value (~): Not determined.

Change in condition

Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	>100 °C (>212 °F)
Flash point:	A flash point determination is unnecessary due to high water content.

Flammability (solid, gaseous): Not applicable.

Ignition temperature: Undetermined.

Decomposition temperature: Not applicable under normal storage conditions.

Auto igniting: Product is not self-igniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

Lower:	Not applicable.
Upper:	Not applicable.
VOC Content (max):	Not applicable.

Vapor pressure at 20 °C (68 °F):	<18 mmHg
Density: (~)	Not applicable.
Relative density	1.4 g/m ³
Vapor density	Not applicable.
Evaporation rate	Not applicable.

Solubility in / Miscibility with Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

Dynamic at 25 °C (77 °F):	<100 cps (Brookfield)
Kinematic:	Not determined.
Molecular weight	Not applicable.

Other information No further relevant information available.

* **10 Stability and reactivity**

Reactivity Stable under normal conditions.

Chemical stability Stable under normal conditions.

Thermal decomposition: No decomposition if used according to specifications.

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

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Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Nitrogen oxides

11 Toxicological information**Delayed and immediate effects and chronic effects from short or long term exposure**

May cause damage to organs through prolonged or repeated exposure.

Information on toxicological effects**Acute toxicity:****LD/LC50 values relevant for classification:****10124-37-5 Calcium nitrate**

Oral | LD50 | 302 mg/kg (rat)

13780-06-8 Calcium nitrite

Oral | LD50 | 283 mg/kg (rat)

111-46-6 Diethylene glycol

Oral | LD50 | 1,120 mg/kg (human)

105-59-9 2,2'-(methylimino)diethanol

Oral | LD50 | 4,680 mg/kg (rat) (OECD 401)

Primary irritant effect:**on the skin:** No irritating effect expected**on the eye:** Causes serious eye damage.**inhalation:** No irritating effect expected**Ingestion:**

May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Harmful if swallowed.

Additional toxicological information:**Carcinogenic categories****IARC (International Agency for Research on Cancer) Human Carcinogenicity:****Group 1- Positive, Group 2A- Probable, Group 2B- Possible, Group 3- Not Classifiable**

None of the ingredients are listed.

NTP (National Toxicology Program)**K-Known to be carcinogenic, R-May reasonably be anticipated to be carcinogenic**

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients are listed.

12 Ecological information**Toxicity****Aquatic toxicity:** No further relevant information available.**Persistence and degradability** No further relevant information available.**Behavior in environmental systems:****Bioaccumulative potential** No further relevant information available.**Mobility in soil** No further relevant information available.

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Additional ecological information:**General notes:** Must not reach bodies of water or drainage ditch undiluted or unneutralized.**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**Other adverse effects** No further relevant information available.**13 Disposal considerations****Disposal methods:**

Consult all regulations (federal, state, provincial, local) or a qualified waste disposal firm when characterizing product for disposal. Dispose of waste in accordance with all applicable regulations.

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:**Recommendation:** Dispose of contents/container in accordance with local/regional/national/international regulations.**14 Transport information**

UN-Number DOT, IMDG, IATA	Not applicable.
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UN proper shipping name DOT, IMDG, IATA	Not applicable.
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Transport hazard class(es) DOT, IMDG, IATA Class	Not applicable.
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Packing group DOT, IMDG, IATA	Not applicable.
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Environmental hazards:	Not applicable.
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Special precautions for user	Not applicable.
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Transport/Additional information:

DOT Remarks:	Not Regulated.
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UN "Model Regulation":	Not applicable.
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15 Regulatory information**SARA (Superfund Amendments and Reauthorization Act)****Section 302/304 (extremely hazardous substances):**

None of the ingredients is listed.

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Section 313 Reportable Ingredients (Chemicals present below reporting threshold are exempt):

10124-37-5	Calcium nitrate	19.2%
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SARA Section 312/Tier I & II Hazard Categories:

Health Hazard - Acute toxicity (any route of exposure)

Health Hazard - Serious eye damage or eye irritation

Health Hazard - Specific target organ toxicity (single or repeated exposure)

North America Chemical Inventory Status**TSCA (Toxic Substances Control Act - United States):**

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian DSL):

All ingredients are listed or exempt from listing unless otherwise noted below.

Right to Know Ingredient Disclosure:

7732-18-5	Water	50-<60%
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California Proposition 65: (Substances <0.1% unless noted in Section 3)**Chemicals known to cause cancer:**

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

107-21-1	Ethylene glycol
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Carcinogenicity Categories**TLV-ACGIH (THE American Conference of Governmental Industrial Hygienists)****Human Carcinogen - A1 Confirmed, A2 Suspected, A3 Unknown Relevance, A4 Not Classifiable**

None of the ingredients are listed.

NIOSH-Cancer (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

Volatile Organic Compounds (VOC) reported per the Emission Standards.

If no g/L value is provided this product is not subject to above standard.

16 Other information

The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection.

Department issuing SDS:

GCP Applied Technologies

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Cambridge, MA 02140 USA

USA: +1-617-876-1400 (24 hours)

+1-800-354-5414

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