L - 318FR/EC POTTING COMPOUND, PART A

Revision Date 08.06.2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name L - 318FR/EC POTTING COMPOUND, PART A

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

Uses of the Substance/Mixture

- Engineered materials

1.3 Details of the supplier of the safety data sheet

Company

CYTEC INDUSTRIES INC.
COMPOSITE MATERIALS
504 CARNEGIE CENTER PRINCETON, NJ 08540 USA
Tel: +1-833-970-1163

E-mail address

manager.sds@solvay.com

1.4 Emergency telephone number

+44(0)1235 239 671 [CareChem 24]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification (UN)

Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Short-term (acute) aquatic hazard, Category 3	H402: Harmful to aquatic life.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

GHS label elements (UN)

Hazardous products which must be listed on the label

- ***** Glycidyl Ether

Pictogram

Signal word

- Warning

Hazard statements

- H317 May cause an allergic skin reaction.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

General

- None

Prevention
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.

Response
- P302 + P352 IF ON SKIN: Wash with plenty of water.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage
- None

Disposal
- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Information on Components and Impurities

Chemical name	CAS-No.	GHS Classification	Concentration [%]
aluminium hydroxide	CAS-No. : 21645-51-2	Not classified	15 - 20
Glycidyl Ether	*****	Skin sensitization, Sub-category 1A ; H317 Short-term (acute) aquatic hazard, Category 2 ; H401 Long-term (chronic) aquatic hazard, Category 2 ; H411	5 - 10
Synthetic amorphous silica	CAS-No. : 112945-52-5	Not classified	2 - 6
Unrespirable glass fibers (D>3 µm)	CAS-No. : 65997-17-3	Not classified	1 - 5
diantimony pentoxide	CAS-No. : 1314-60-9	Short-term (acute) aquatic hazard, Category 2 ; H401	1 - 5

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

In case of inhalation

- Quickly move the person away from the contaminated area. Make the affected person rest.
- Obtain medical attention.
- Show this sheet to the doctor.
- Be prepared to provide first aid or medical support if necessary.

In case of skin contact

- Wash off immediately with plenty of water for at least 15 minutes.
- Use appropriate protective equipment when treating a contaminated person.
- In case of inflammation (redness, irritation, ...) obtain medical attention.
- Show this sheet to the doctor.
- Be prepared to provide first aid or medical support if necessary.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Keep eye wide open while rinsing.
- Show this sheet to the doctor.
- Always obtain medical advice, even if there are no symptoms.
- Be prepared to provide first aid or medical support if necessary.

In case of ingestion

- Do NOT induce vomiting.
- Obtain medical attention.
- Show this sheet to the doctor.
- Do not give anything to drink.
- Be prepared to provide first aid or medical support if necessary.

4.2 Most important symptoms and effects, both acute and delayed

Effects

- Chronic exposure may cause allergic dermatitis.
- Exposure may cause allergic rhinitis, conjunctivitis, asthma or shock.

Symptoms

- Breathing difficulties
- Irritation
- Redness
- Swelling of tissue
- allergic rhinitis
- Severe allergic skin reactions, bronchiospasm and anaphylactic shock
- Itching
- Lachrymation

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- Get medical advice/ attention.
- Treat symptomatically.
- Keep under medical follow up for at least 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

- Water spray
- Foam
- Carbon dioxide (CO2)
- Multi-purpose powders

Unsuitable extinguishing media

- High volume water jet

5.2 Special hazards arising from the substance or mixture

- Under fire conditions:
- Will burn

- On combustion, toxic gases are released.

5.3 Advice for firefighters

Special protective equipment for firefighters

- In the event of fire, wear self-contained breathing apparatus.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- For further information refer to section 8 "Exposure controls/personal protection".

Specific fire fighting methods

- Do not use a solid water stream as it may scatter and spread fire.

Further information

- Standard procedure for chemical fires.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Where exposure level is not known, wear approved, positive pressure, self-contained respirator.
- Where exposure level is known, wear approved respirator suitable for level of exposure.
- For further information refer to section 8 "Exposure controls/personal protection".

6.2 Environmental precautions

- Prevent further leakage or spillage if safe to do so.
- Contain the spilled material by bunding.
- Do not let product enter drains.
- Do not allow uncontrolled discharge of product into the environment.

6.3 Methods and materials for containment and cleaning up

- Stop leak if safe to do so.
- Avoid dust formation.
- Sweep up and shovel into suitable containers for disposal.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.
- After cleaning, flush away traces with water.
- Recover the cleaning water for subsequent disposal.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.
- Dispose of in accordance with local regulations.
- Never return spills in original containers for re-use.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- Ensure that eyewash stations and safety showers are close to the workstation location.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage period: 12 Months

Recommended storage temperature: < 25 °C

- To guarantee the quality and properties of the product keep according to Storage temperature and conditions.

7.3 Specific end use(s)

- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with other occupational exposure limits

Components	Value type	Value	Basis
Aluminium hydroxide	TWA	1 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : Respirable particulate matter Expressed as :Aluminium		
Unrespirable glass fibers (D>3 µm)	TWA	1 fibres per cubic centimeter	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : fibres		
Unrespirable glass fibers (D>3 µm)	TWA	5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Form of exposure : Inhalable particulate matter		
Diantimony pentoxide	TWA	0.5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Expressed as :antimony		
Synthetic amorphous silica	TWA	4 mg/m3	Solvay Acceptable Exposure Limit

8.2 Exposure controls

Control measures

Engineering measures
- Provide appropriate exhaust ventilation at places where dust is formed.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures

Respiratory protection
- Keep in a well-ventilated place.
- Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

Hand protection
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Impervious gloves

Suitable material
- Nitrile or fluorinated rubber gloves.

Eye protection
- Dust proof goggles, if dusty.
- Tightly fitting safety goggles
- Eye wash bottles or eye wash stations in compliance with applicable standards.

Skin and body protection
- Full protective suit
- Change working clothes after each workshift.
- Contaminated work clothing should not be allowed out of the workplace.

Hygiene measures
- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- Ensure that eyewash stations and safety showers are close to the workstation location.

Environmental exposure controls
- Dispose of rinse water in accordance with local and national regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form:	solid, Resin(s)
	Physical state:	solid
	Colour:	off-white
Odour	odourless	
Odour Threshold	No data available	
Molecular weight	Mixture	
pH	Not applicable	
Melting point/freezing point	Melting point/range: 52 - 62 °C	

Initial boiling point and boiling range	Boiling point/boiling range: Not applicable
Flash point	Not applicable
Evaporation rate (Butylacetate = 1)	Not applicable
Flammability (solid, gas)	No data available
Flammability (liquids)	No data available
Flammability/Explosive limit	Lower flammability/explosion limit: Type: Lower explosion limit Not applicable Upper flammability/explosion limit: Type: Upper flammability limit Not applicable
Auto-ignition temperature	No data available
Vapour pressure	Not applicable
Vapour density	No data available
Density	1.3 g/cm3
Relative density	No data available
Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	Not considered as oxidizing

9.2 Other information

Peroxides	The substance or mixture is not classified as organic peroxide.

SECTION 10: Stability and reactivity

10.1 Reactivity

- Not classified as a reactivity hazard.

10.2 Chemical stability

- Stable under normal conditions.

10.3 Possibility of hazardous reactions

polymerisation

- Hazardous polymerisation may occur.

10.4 Conditions to avoid

- Keep away from heat, sparks and flame.
- Heat

10.5 Incompatible materials

- Oxidizing agents
- Acids and bases
- Amines

10.6 Hazardous decomposition products

- Hydrogen bromide
- Carbon oxides
- Thermal decomposition can lead to release of toxic and corrosive gases.
- phenolic compounds

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	Not classified as hazardous for acute oral toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute inhalation toxicity	Not classified as hazardous for acute inhalation toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute dermal toxicity	Not classified as hazardous for acute dermal toxicity according to GHS. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute toxicity (other routes of administration)	Not applicable
Skin corrosion/irritation	Not classified as irritating to skin According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Serious eye damage/eye irritation	Not classified as irritating to eyes According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

Respiratory or skin sensitisation

aluminium hydroxide	Maximisation Test - Guinea pig Responding animals in GPMT < 30% The substance or mixture is not considered to be sensitizing by skin contact. Method: OECD Test Guideline 406 Unpublished reports
Glycidyl Ether	Maximisation Test - Guinea pig ≥ 60 % responding at > 0,1 % to ≤ 1 % intradermal induction dose Method: OECD Test Guideline 406 Unpublished reports

Synthetic amorphous silica	Humans no cutaneous sensitisation reaction observed Unpublished reports
diantimony pentoxide	Local lymph node assay - Mouse Maximum Stimulation Index < 3 Method: OECD Test Guideline 429 Unpublished reports

Mutagenicity

Genotoxicity in vitro	Product is not considered to be genotoxic According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Genotoxicity in vivo	Product is not considered to be genotoxic According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Carcinogenicity	The product is not considered to be carcinogenic. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

Toxicity for reproduction and development

Toxicity to reproduction/Fertility	The product is not considered to affect fertility.,According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Developmental Toxicity/Teratogenicity	The product is not considered to be toxic for development.,According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

STOT

STOT - single exposure	The substance or mixture is not classified as specific target organ toxicant, single exposure according to GHS criteria. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
STOT - repeated exposure	The substance or mixture is not considered to cause damage to organs through prolonged or repeated exposure. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data. The product itself has not been tested.

Neurological effects

Synthetic amorphous silica	No neurotoxic effects observed.

Experience with human exposure

Experience with human exposure : Inhalation

No data is available on the product itself.

Experience with human exposure : Skin contact

No data is available on the product itself.

Experience with human exposure : Eye contact

No data is available on the product itself.

Experience with human exposure : Ingestion

No data is available on the product itself.

CMR effects

Carcinogenicity

aluminium hydroxide	Not classified as a carcinogen according to GHS criteria

Mutagenicity

aluminium hydroxide	Not classified as mutagen according to GHS criteria.
diantimony pentoxide	Not classified as mutagen according to GHS criteria.

Teratogenicity

aluminium hydroxide	Not classified as toxic for the reproduction (development) according to GHS criteria
diantimony pentoxide	Classification not possible from current data

Reproductive toxicity

aluminium hydroxide	Not classified as toxic for the reproduction (fertility and/or development) according to GHS criteria

Aspiration toxicity	No aspiration toxicity classification, According to the available data on the components, According to the classification criteria for mixtures.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish	The product itself has not been tested.
Acute toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested.
Toxicity to aquatic plants	The product itself has not been tested.
Toxicity to microorganisms	The product itself has not been tested.
Chronic toxicity to fish	The product itself has not been tested.
Chronic toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested.

Sediment compartment

Toxicity to benthic organisms	The product itself has not been tested.

Terrestrial Compartment

Toxicity to soil dwelling organisms	The product itself has not been tested.
Toxicity to terrestrial plants	The product itself has not been tested.
Toxicity to above ground organisms	The product itself has not been tested.

12.2 Persistence and degradability

Abiotic degradation

Stability in water	Conclusion is not possible for a mixture as a whole.
Photodegradation	Conclusion is not possible for a mixture as a whole.
Other Physico-Chemical reactions	Conclusion is not possible for a mixture as a whole.

Physical- and photo-chemical elimination

Physico-chemical removability	Conclusion is not possible for a mixture as a whole.

Biodegradation

Biodegradability	As (bio)degradability is not relevant for mixtures, all the components of the mixture were assessed individually (rapid degradability assessment available below).
Ratio BOD/COD	Conclusion is not possible for a mixture as a whole.
Ratio BOD/ThOD	Conclusion is not possible for a mixture as a whole.
Biochemical Oxygen Demand (BOD)	Conclusion is not possible for a mixture as a whole.
Dissolved organic carbon (DOC)	Conclusion is not possible for a mixture as a whole.
Chemical Oxygen Demand (COD)	Conclusion is not possible for a mixture as a whole.
Adsorbed organic bound halogens (AOX)	Conclusion is not possible for a mixture as a whole.
Degradability assessment	Conclusion is not possible due to incomplete or heterogeneous data on the components Unpublished reports Published data

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water	Conclusion is not possible for a mixture as a whole.
Bioconcentration factor (BCF)	As bioaccumulation is not relevant for mixtures, all the components of the mixture were assessed individually. Conclusion is not possible due to incomplete or heterogeneous data on the components Unpublished reports Published data

12.4 Mobility in soil

Adsorption potential (Koc)	Conclusion is not possible for a mixture as a whole.
Known distribution to environmental compartments	Conclusion is not possible due to incomplete or heterogeneous data on the components

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).
According to the available data on the components

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

Harmful to aquatic life.
According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

Long-term (chronic) aquatic hazard

Harmful to aquatic life with long lasting effects.
According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

SECTION 14: Transport information

IMDG
not regulated

IATA
not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Local regulations

No data available

Notification status

Inventory Information	Status
United States TSCA Inventory	- All substances listed as active on the TSCA inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- One or more components not listed on inventory

Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIOC inventory. The HSNO status of the product has not been assessed.
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

SECTION 16: Other information

Full text of H-Statements

- H317 May cause an allergic skin reaction.
- H401 Toxic to aquatic life.
- H402 Harmful to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Key or legend to abbreviations and acronyms used in the safety data sheet

- SAEL Solvay Acceptable Exposure Limit
- TWA 8-hour, time-weighted average
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

Further information

- Distribute new edition to clients

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

L - 318 PART B RESIN

Revision Date 03/05/2020

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- Trade name L - 318 PART B RESIN

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

Uses of the Substance / Mixture

- Engineered materials

1.3 Details of the supplier of the safety data sheet

Company

CYTEC INDUSTRIES INC.
COMPOSITE MATERIALS
504 CARNEGIE CENTER PRINCETON, NJ 08540 USA
Tel: +1-833-970-1163

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CONTACT CHEMTREC (24-Hour Number): 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

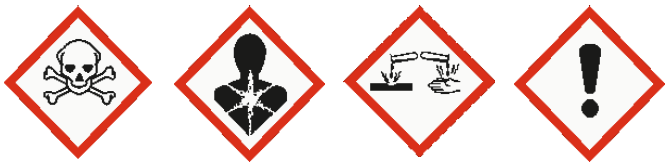
HCS 2012 (29 CFR 1910.1200)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 2	H330: Fatal if inhaled.
Acute toxicity, Category 4	H312: Harmful in contact with skin.
Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Germ cell mutagenicity, Category 2	H341: Suspected of causing genetic defects.
Reproductive toxicity, Category 1B	H360: May damage fertility or the unborn child.
Specific target organ toxicity - single exposure, Category 3	H335: May cause respiratory irritation. (Respiratory system)
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure. (Blood, Liver, Central nervous system, Kidney)

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Pictogram



Signal Word

- Danger

Hazard Statements

- H302 + H312	Harmful if swallowed or in contact with skin.
- H314	Causes severe skin burns and eye damage.
- H317	May cause an allergic skin reaction.
- H330	Fatal if inhaled.
- H335	May cause respiratory irritation.
- H341	Suspected of causing genetic defects.
- H360	May damage fertility or the unborn child.
- H373	May cause damage to organs (Blood, Liver, Central nervous system, Kidney) through prolonged or repeated exposure.

Precautionary Statements

Prevention

- P201	Obtain special instructions before use.
- P202	Do not handle until all safety precautions have been read and understood.
- P260	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
- P264	Wash skin 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 must not be allowed out of the workplace.
- P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P284	Wear respiratory protection.

Response

- P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
- P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
- P305 + P351 + P338 + P310	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.
- P308 + P313	IF exposed or concerned: Get medical advice/ attention.
- P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
- P363	Wash contaminated clothing before reuse.

Storage

- P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
- P405	Store locked up.

Disposal

- P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

- H401: Toxic to aquatic life.
- H411: Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

Hazardous Ingredients and Impurities

Chemical name	Identification number CAS-No.	Concentration [%]
1,2-Ethanediamine, N1-(2-aminoethyl)-	111-40-0	40 - 70
Amine functional oxirane polymer	*****	15 - 30
Phenol	108-95-2	10 - 20
4,4'-Isopropylidenediphenol	80-05-7	7 - 13
Aliphatic amine	*****	0.1 - 1

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1 Description of first-aid measures

In case of inhalation

- Quickly move the person away from the contaminated area. Make the affected person rest.
- Immediate medical attention is required.
- Show this sheet to the doctor.

In case of skin contact

- Wash off immediately with plenty of water for at least 15 minutes.
- Use appropriate protective equipment when treating a contaminated person.
- Immediate medical attention is required.
- Show this sheet to the doctor.
- Be prepared to provide first aid or medical support if necessary.

In case of eye contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Keep eye wide open while rinsing.
- Show this sheet to the doctor.
- Always obtain medical advice, even if there are no symptoms.

In case of ingestion

- Do NOT induce vomiting.
- Immediate medical attention is required.
- Show this sheet to the doctor.
- Do not give anything to drink.

4.2 Most important symptoms and effects, both acute and delayed

In case of eye contact

Effects
- Eyes splashes can lead to severe cornea destruction.

In case of inhalation

Effects
- Inhalation can lead to local effects in the respiratory tract, from irritation, lung oedema and neurological disorders.

In case of ingestion

Effects
- Ingestion can lead to neurological disorders, digestive tract corrosion, cardiovascular symptoms (heart rhythm disorders), liver (cytolysis) and kidney (tubular necrosis) damage.

Symptoms
- Symptoms will depend on the target organs.
- Inhalation may provoke the following symptoms:
- Cough
- Breathing difficulties
- Irritation
- Redness
- Swelling of tissue
- Ingestion may provoke the following symptoms:
- Nausea
- Diarrhea
- Abdominal pain
- Asphyxia
- Unconsciousness
- May cause respiratory tract irritation.
- allergic rhinitis
- Severe allergic skin reactions, bronchiospasm and anaphylactic shock
- Itching
- Dermatitis
- Causes skin burns.
- Lachrymation
- Conjunctivitis
- Causes eye burns.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

- Read instructions before using.
- PVP/IPA can also be used preferably in case of large exposure alternatively.
- In case of limited exposure, PEG 3550 could be used.

SECTION 5: Firefighting measures

Flash point	> 210.00 °F (> 98.89 °C)
Autoignition temperature	No data available
Flammability / Explosive limit	Lower flammability/explosion limit : Not applicable Upper flammability/explosion limit : Not applicable

5.1 Extinguishing media

Suitable extinguishing media

- Water spray
- Foam
- Carbon dioxide (CO2)
- Multipurpose powders

Unsuitable extinguishing media

- High volume water jet

5.2 Special hazards arising from the substance or mixture

- Under fire conditions:
- Will burn
- On combustion, toxic gases are released.

5.3 Advice for firefighters

Special protective equipment for fire-fighters

- In the event of fire, wear self-contained breathing apparatus.
- Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing
- For further information refer to section 8 "Exposure controls / personal protection."

Specific fire fighting methods

- Cool containers/tanks with water spray.
- Do not use a solid water stream as it may scatter and spread fire.

Further information

- Standard procedure for chemical fires.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Where exposure level is not known, wear approved, positive pressure, self-contained respirator.
- Where exposure level is known, wear approved respirator suitable for level of exposure.
- Avoid contact with the skin and the eyes.
- In addition to the protective clothing/equipment in Section 8, wear a two piece PVC suit with hood or PVC overalls with hood.

6.2 Environmental precautions

- Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
- Contain the spilled material by diking.
- Do not let product enter drains.
- Do not allow uncontrolled discharge of product into the environment.

- Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies

6.3 Methods and materials for containment and cleaning up

- Stop leak if safe to do so.
- Keep in properly labeled containers.
- Keep in suitable, closed containers for disposal.

- Wash nonrecoverable remainder with large amounts of water.
- Soak up with inert absorbent material and dispose of as hazardous waste.
- Decontaminate tools, equipment and personal protective equipment in a segregated area.
- Dispose of in accordance with local regulations.
- Never return spills in original containers for re-use.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Do not release to water.

Hygiene measures

- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage period: 1 h

Recommended storage temperature: 75.0 °F (23.9 °C)

- To guarantee the quality and properties of the product keep according to Storage temperature and conditions.

7.3 Specific end use(s)

- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Components with workplace occupational exposure limits

Components	Value type	Value	Basis
1,2-Ethanediamine, N1-(2-aminoethyl)-	TWA	1 ppm 4 mg/m3	National Institute for Occupational Safety and Health
	Potential for dermal absorption		
1,2-Ethanediamine, N1-(2-aminoethyl)-	TWA	1 ppm	American Conference of Governmental Industrial Hygienists

	Danger of cutaneous absorption		
1,2-Ethanediamine, N1-(2-aminoethyl)-	PEL	1 ppm 4 mg/m3	
	Skin		
Phenol	TWA	5 ppm	American Conference of Governmental Industrial Hygienists
	Danger of cutaneous absorption		
Phenol	TWA	5 ppm 19 mg/m3	Occupational Safety and Health Administration - Table Z-1 Limits for Air Contaminants
	Skin designation		
Phenol	TWA	5 ppm 19 mg/m3	National Institute for Occupational Safety and Health
	Potential for dermal absorption		
Phenol	C	15.6 ppm 60 mg/m3	National Institute for Occupational Safety and Health
	Potential for dermal absorption		
Phenol	PEL	5 ppm 19 mg/m3	
	Skin		
4,4'-Isopropylidenediphenol	TWA	1.1 mg/m3	Solvay Acceptable Exposure Limit
	Skin		

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Components	CAS-No.	Concentration
Phenol	108-95-2	250 parts per million

Biological Exposure Indices

Components	Value type	Value	Basis
Phenol	BEI	250 mg/g Creatinine Phenol Urine End of shift (As soon as possible after exposure ceases)	American Conference of Governmental Industrial Hygienists
	Nonspecific Background With hydrolyses		

8.2 Exposure controls

Control measures

Engineering measures
- Ensure adequate ventilation.
- Apply technical measures to comply with the occupational exposure limits.

Individual protection measures

Respiratory protection
- Self-contained breathing apparatus in confined spaces/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.
- Wear a positive-pressure supplied-air respirator.
- Use the indicated respiratory protection if the occupational exposure limit is exceeded.

Hand protection
- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Impervious gloves

Suitable material
- Nitrile or fluorinated rubber gloves.

Eye protection
- Chemical resistant goggles must be worn.
- Tightly fitting safety goggles

Skin and body protection
- Impervious clothing
- Full protective suit
- Change working clothes after each work-shift.
- Contaminated work clothing should not be allowed out of the workplace.

Hygiene measures
- Handle in accordance with good industrial hygiene and safety practice.
- Wash hands before breaks and at the end of workday.
- When using do not eat, drink or smoke.
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Keep away from food and drink.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

Appearance	Form:	liquid
	Physical state:	liquid
	Color:	amber
Odor	amine-like	

Odor Threshold	No data available
Molecular weight	Mixture
pH	Not applicable
Melting point/freezing point	Melting point/range: Not applicable
Initial boiling point and boiling range	Boiling point/boiling range: Not applicable
Flash point	> 210.00 °F (> 98.89 °C)
Evaporation rate (Butylacetate = 1)	Not applicable
Flammability (solid, gas)	No data available
Flammability (liquids)	No data available
Flammability / Explosive limit	Lower flammability/explosion limit: Type: Lower explosion limit Not applicable Upper flammability/explosion limit: Type: Upper flammability limit Not applicable
Autoignition temperature	No data available
Vapor pressure	Not applicable
Vapor density	No data available
Density	0.9 g/cm3
Relative density	No data available
Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	Not considered as oxidizing.

9.2 Other information

Peroxides	The substance or mixture is not classified as organic peroxide.

SECTION 10: Stability and reactivity

10.1 Reactivity

- no data available

10.2 Chemical stability

- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

polymerization
- Hazardous polymerization does not occur.

10.4 Conditions to avoid

- Keep away from heat, sparks and flame.

10.5 Incompatible materials

- reactive metals (Al, K, Zn ...).
- Oxidizing agents
- Acids

10.6 Hazardous decomposition products

- Ammonia
- Hydrogen cyanide (hydrocyanic acid)
- Carbon oxides
- Nitrogen oxides (NOx)
- Nitric acid
- Thermal decomposition can lead to release of toxic and corrosive gases.
- Hydrocarbons
- Nitrosamine
- Aldehydes

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity	This product is classified as acute toxicity category 4 According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute inhalation toxicity	
1,2-Ethanediamine, N1-(2-aminoethyl)-	LC50 - 4 h (dust/mist) : 0.07 - 0.3 mg/l - Rat , male and female Method: OECD Test Guideline 403 This product is classified as acute toxicity category 2 Unpublished reports
Phenol	Humans This product is classified as acute toxicity category 3 Expert judgment Toxic if inhaled.

4,4'-Isopropylidenediphenol	LC50 - 6 h (dust/mist) : 0.17 mg/l - Rat , male and female Method: according to a standardized method Not classified as hazardous for acute inhalation toxicity according to GHS. Maximum dose technically administrable No mortality observed at this concentration. Respiratory irritation Unpublished reports
Aliphatic amine	LC50 - 8 h (vapor) : - Rat , female Conclusion is not possible due to incomplete or heterogeneous data on the components No mortality observed at this concentration. Saturated vapor concentration Published data Unpublished reports
Acute dermal toxicity	This product is classified as acute toxicity category 4 According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Acute toxicity (other routes of administration)	Not applicable
Skin corrosion/irritation	Corrosive to skin According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Serious eye damage/eye irritation	Risk of serious damage to eyes. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
Respiratory or skin sensitization	
1,2-Ethanediamine, N1-(2-aminoethyl)-	Local lymph node assay - Mouse Classified as a skin sensitizer sub-category 1B according to GHS criteria Method: OECD Test Guideline 429 Unpublished reports Guinea pig Classified as a skin sensitizer sub-category 1B according to GHS criteria Method: OECD Test Guideline 406 Published data
Amine functional oxirane polymer	Classified as a skin sensitizer sub-category 1B according to GHS criteria Expert judgment
Phenol	Guinea pig Does not cause skin sensitization. Method: OECD Test Guideline 406 Unpublished reports
4,4'-Isopropylidenediphenol	Classified as a skin sensitizer category 1 according to GHS criteria Published data

Aliphatic amine	Maximization Test - Guinea pig Responding animals in GPMT ≥ 30% Method: OECD Test Guideline 406 Published data

Mutagenicity

Genotoxicity in vitro

1,2-Ethanediamine, N1-(2-aminoethyl)-	Ames test with and without metabolic activation positive Method: OECD Test Guideline 471 Unpublished reports Chromosome aberration test in vitro Strain: Chinese hamster ovary cells with and without metabolic activation negative Unpublished reports Gene mutation assays in mammalian cells. Strain: Chinese hamster ovary cells with and without metabolic activation negative Method: according to a standardized method Unpublished reports
Phenol	Mutagenicity (Salmonella typhimurium - reverse mutation assay) with and without metabolic activation negative Published data

	In vitro micronucleus test Strain: CHO with and without metabolic activation positive Method: OECD Test Guideline 487 Published data Chromosome aberration test in vitro Strain: CHO positive Method: OECD Test Guideline 473 Published data In vitro micronucleus test Strain: Human lymphocytes positive Method: OECD Test Guideline 487 Published data sister chromatid exchange assay Strain: Chinese hamster ovary cells positive Method: OECD Test Guideline 479 Published data
4,4'-Isopropylidenediphenol	Ames test with and without metabolic activation negative Method: according to a standardized method Unpublished reports

	Chromosome aberration test in vitro Strain: Chinese hamster ovary cells with and without metabolic activation negative Method: according to a standardized method Published data sister chromatid exchange assay Strain: Chinese hamster ovary cells with and without metabolic activation negative Method: according to a standardized method Published data Gene mutation assays in mammalian cells. Strain: mouse lymphoma cells with and without metabolic activation negative Method: according to a standardized method Published data
Aliphatic amine	Ames test Strain: Salmonella typhimurium with and without metabolic activation negative Method: OECD Test Guideline 471 Not mutagenic in Ames Test. Unpublished reports unscheduled DNA synthesis assay Strain: rat hepatocytes without metabolic activation negative Unpublished reports Gene mutation assays in mammalian cells. Strain: CHO with and without metabolic activation negative Product is not considered to be genotoxic Unpublished reports
Genotoxicity in vivo	
1,2-Ethanediamine, N1-(2-aminoethyl)-	In vivo micronucleus test - Mouse male and female Method: OECD Test Guideline 474 negative Gavage Unpublished reports

Phenol	In vivo micronucleus test - Mouse Bone marrow male and female Intraperitoneal route Method: OECD Test Guideline 474 Conflicting results have been seen in different studies. Published data
4,4'-Isopropylidenediphenol	In vivo micronucleus test - Mouse male and female Oral exposure Method: according to a standardized method negative Unpublished reports
Aliphatic amine	Chromosome aberration test in vivo - Mouse male and female Intraperitoneal injection negative In vivo tests did not show mutagenic effects Unpublished reports
Carcinogenicity	The product is not considered to be carcinogenic. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

NTP
IARC
OSHA

Toxicity for reproduction and development

Toxicity to reproduction / fertility

1,2-Ethanediamine, N1-(2-aminoethyl)-	Rat, male and female, Gavage General Toxicity Parent NOAEL: 100 mg/kg Fertility NOAEL Parent: 30 mg/kg OECD Test Guideline 421 Reproductive effects, The significance of these findings for humans is not certain., A testing proposal has been submitted to ECHA., Unpublished reports
Phenol	Two-generation study - Rat, for males and females, drinking water OECD Test Guideline 416 no impairment of fertility has been observed, Effects on the progeny are not considered significant as they were observed only in doses leading to maternal toxicity, Published data
4,4'-Isopropylidenediphenol	Fertility study 3 generations - Rat, male and female, Oral Fertility NOAEL: 50 mg/kg according to a standardized method Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments, Published data

Developmental Toxicity/Teratogenicity

1,2-Ethanediamine, N1-(2-aminoethyl)-	Rat, male and female General Toxicity Maternal NOAEL: 100 mg/kg Teratogenicity NOAEL:30mg/kg Method: OECD Test Guideline 421 Effects on development were observed, The significance of these findings for humans is not certain., A testing proposal has been submitted to ECHA., Unpublished reports
Phenol	Rat, Oral General Toxicity Maternal NOAEL: 60 mg/kg Teratogenicity NOAEL:120mg/kg Method: OECD Test Guideline 414 Maternal toxicity, Effects on the progeny are not considered significant as they were observed only in doses leading to maternal toxicity, Published data Mouse, Oral General Toxicity Maternal NOAEL: 140 mg/kg Teratogenicity NOAEL:140mg/kg Method: OECD Test Guideline 414 Maternal toxicity, Effects on the progeny are not considered significant as they were observed only in doses leading to maternal toxicity, Published data
4,4'-Isopropylidenediphenol	Rat, Oral General Toxicity Maternal LOAEL: 160 mg/kg Teratogenicity NOAEL:640mg/kg Method: according to a standardized method Did not show teratogenic effects in animal experiments., Published data

STOT

STOT-single exposure	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation according to GHS criteria. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data.
STOT-repeated exposure	The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2 according to GHS criteria. According to the available data on the components. According to the classification criteria for mixtures. Unpublished reports and/or published data. The product itself has not been tested.

Experience with human exposure

Experience with human exposure : Inhalation

No data is available on the product itself.

Experience with human exposure : Skin contact

No data is available on the product itself.

Experience with human exposure : Eye contact

No data is available on the product itself.

Experience with human exposure : Ingestion

No data is available on the product itself.

CMR effects

Mutagenicity

Phenol	Classified as mutagen category 2 according to GHS criteria.
Aspiration toxicity	No aspiration toxicity classification, According to the available data on the components, According to the classification criteria for mixtures.

Further information

4,4'-Isopropylidenediphenol	May cause endocrine disruption.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish	The product itself has not been tested.
Acute toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested.
Toxicity to aquatic plants	The product itself has not been tested.
Toxicity to microorganisms	The product itself has not been tested.
Chronic toxicity to fish	The product itself has not been tested.
Chronic toxicity to daphnia and other aquatic invertebrates	The product itself has not been tested.

Sediment compartment

Toxicity to benthic organisms	The product itself has not been tested.

Terrestrial Compartment

Toxicity to soil dwelling organisms	The product itself has not been tested.
Toxicity to terrestrial plants	The product itself has not been tested.
Toxicity to above ground organisms	The product itself has not been tested.

12.2 Persistence and degradability

Abiotic degradation

Stability in water	Conclusion is not possible for a mixture as a whole.
Photodegradation	Conclusion is not possible for a mixture as a whole.
Other Physicochemical reactions	Conclusion is not possible for a mixture as a whole.

Physical- and photo-chemical elimination

Physico-chemical removability	Conclusion is not possible for a mixture as a whole.

Biodegradation

Biodegradability	As (bio)degradability is not relevant for mixtures, all the components of the mixture were assessed individually (rapid degradability assessment available below).
Ratio BOD / COD	Conclusion is not possible for a mixture as a whole.
Ratio BOD / ThOD	Conclusion is not possible for a mixture as a whole.
Biochemical Oxygen Demand (BOD)	Conclusion is not possible for a mixture as a whole.
Dissolved organic carbon (DOC)	Conclusion is not possible for a mixture as a whole.
Chemical Oxygen Demand (COD)	Conclusion is not possible for a mixture as a whole.
Adsorbed organic bound halogens (AOX)	Conclusion is not possible for a mixture as a whole.
Degradability assessment	Conclusion is not possible due to incomplete or heterogeneous data on the components Unpublished reports Published data

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water	Conclusion is not possible for a mixture as a whole.
Bioconcentration factor (BCF)	As bioaccumulation is not relevant for mixtures, all the components of the mixture were assessed individually. Conclusion is not possible due to incomplete or heterogeneous data on the components Unpublished reports Published data

12.4 Mobility in soil

Adsorption potential (Koc)	Conclusion is not possible for a mixture as a whole.
Known distribution to environmental compartments	Conclusion is not possible due to incomplete or heterogeneous data on the components

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).
Remark(s): According to the available data on the components

12.6 Other adverse effects

Ecotoxicity assessment

Short-term (acute) aquatic hazard

Toxic to aquatic life.
According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

Long-term (chronic) aquatic hazard

Toxic to aquatic life with long lasting effects.
According to the available data on the components.
According to the classification criteria for mixtures.
Unpublished reports and/or published data.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

- The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification.
The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number	UN 2927
14.2 Proper shipping name	TOXIC LIQUIDS, CORROSIVE, ORGANIC, N.O.S. (Diethylenetriamine, Phenol)
14.3 Transport hazard class	6.1
Subsidiary hazard class	8,
Label(s)	6.1, (8,)
14.4 Packing group	
Packing group	II
ERG No	154
14.5 Environmental hazards	YES
Marine pollutant	Marine Pollutant (Phenol, Phenol, 4,4'-(1-methylethylidene)bis-)

14.6 Special precautions for user

This product contains one or more ingredients identified as a hazardous substance in Appendix A of 49 CFR 172.101.

Reportable quantities	:	RQ substance: Phenol RQ limit for substance: 1,000 lb

TDG

14.1 UN number	UN 2927
14.2 Proper shipping name	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Diethylenetriamine, Phenol)
14.3 Transport hazard class	6.1
Subsidiary hazard class	8
Label(s)	6.1 (8)
14.4 Packing group	
Packing group	II
ERG No	154
14.5 Environmental hazards	YES
Marine pollutant	Marine Pollutant (Phenol, Phenol, 4,4'-(1-methylethylidene)bis-)

NOM

14.1 UN number	UN 2927
14.2 Proper shipping name	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Diethylenetriamine, Phenol)
14.3 Transport hazard class	6.1
Subsidiary hazard class	8
Label(s)	6.1 (8)
14.4 Packing group	
Packing group	II
ERG No	154
14.5 Environmental hazards	YES
Marine pollutant	

IMDG

14.1 UN number	UN 2927
14.2 Proper shipping name	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Diethylenetriamine, Phenol)
IMDG Code segregation group	Not Relevant
14.3 Transport hazard class	6.1
Subsidiary hazard class	8
Label(s)	6.1 (8)
14.4 Packing group	

Packing group	II
14.5 Environmental hazards **Marine pollutant**	YES
14.6 Special precautions for user EmS	F-A , S-B

For personal protection see section 8.

IATA

14.1 UN number	UN 2927
14.2 Proper shipping name	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (Diethylenetriamine, Phenol)
14.3 Transport hazard class Subsidiary hazard class: Label(s):	6.1 8 6.1 (8)
14.4 Packing group Packing group	II
Packing instruction (cargo aircraft) Max net qty / pkg Packing instruction (passenger aircraft) Max net qty / pkg	660 30.00 L 653 1.00 L
14.5 Environmental hazards	YES
14.6 Special precautions for user For personal protection see section 8.	

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

Inventory Information	Status
United States TSCA Inventory	- All substances listed as active on the TSCA inventory
Canadian Domestic Substances List (DSL)	- Listed on Inventory
Australia Inventory of Chemical Substances (AICS)	- Listed on Inventory
Japan. CSCL - Inventory of Existing and New Chemical Substances	- One or more components not listed on inventory
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- One or more components not listed on inventory
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIOC inventory. The HSNO status of the product has not been assessed.
EU. European Registration, Evaluation, Authorisation and Restriction of Chemical (REACH)	- When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

15.2 Federal Regulations

US. EPA EPCRA SARA Title III

SARA Hazard Designation Sections 311/312 (40 CFR 370)

Acute toxicity (any route of exposure)	Yes
Skin corrosion or irritation	Yes
Serious eye damage or eye irritation	Yes
Respiratory or skin sensitization	Yes
Germ cell mutagenicity	Yes
Reproductive toxicity	Yes
Specific target organ toxicity (single or repeated exposure)	Yes

The categories not mentioned are not relevant for the product.

Section 313 Toxic Chemicals (40 CFR 372.65)

The following components are subject to reporting levels established by SARA Title III, Section 313:

Components	CAS-No.	Concentration
Phenol	108-95-2	10- 20%
4,4'-Isopropylidenediphenol	80-05-7	7- 13%

Components	CAS-No.	Threshold planning quantity	Remarks
Phenol	108-95-2	10000 lb	
		500 lb	Form: molten

Section 302 Emergency Planning Extremely Hazardous Substance Reportable Quantity (40 CFR 355)

Components	CAS-No.	Reportable quantity
Phenol	108-95-2	1000 lb

Calculated RQ exceeds reasonably attainable upper limit.

Section 304 Emergency Release Notification Reportable Quantity (40 CFR 355)

Components	CAS-No.	Reportable quantity

Phenol	108-95-2	1000 lb

Calculated RQ exceeds reasonably attainable upper limit.

US. EPA CERCLA Hazardous Substances and Reportable Quantities (40 CFR 302.4)

Components	CAS-No.	Reportable quantity
Phenol	108-95-2	1000 lb

Calculated RQ exceeds reasonably attainable upper limit.

15.3 State Regulations

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product is not sold or intended to be sold as a "consumer product" as defined under California's Proposition 65 statute and regulations. If you require information, please contact your local sales representative.

SECTION 16: Other information

NFPA (National Fire Protection Association) - Classification

Health	4 severe
Flammability	1 slight
Instability or Reactivity	0 minimal

Further information

- Distribute new edition to clients

Date Prepared: 03/05/2020

Key or legend to abbreviations and acronyms used in the safety data sheet

- C: Ceiling value not be exceeded at any time.
- PEL: Permissible exposure limit
- TWA: 8-hour, time-weighted average
- SAEL: Solvay Acceptable Exposure Limit
- ACGIH: American Conference of Governmental Industrial Hygienists
- OSHA: Occupational Safety and Health Administration
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- NIOSH: National Institute for Occupational Safety and Health
- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Specification for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.

- SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level
- PNEC: Predicted No Effect Concentration
- BHOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

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. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.