

SAFETY DATA SHEET

Section 1. Identification

Product identifier	: Additin RC 5650 A
Material Number	: 57258317
Identified uses	: Additive for lubricants
Supplier/Manufacturer	: LANXESS Corporation Rhein Chemie Additives 111 RIDC Park West Drive Pittsburgh, PA 15275-1112 USA
	For information: US/Canada (800) LANXESS International +1 412 809 1000
In case of emergency	: Chemtrec (800) 424-9300 International (703) 527-3887 Lanxess Emergency Phone (800) 410-3063.

Section 2. Hazards identification

HAZCOM Standard Status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Physical state	: Liquid.
Color	: Amber.
Classification of the substance or mixture	: SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 SKIN SENSITIZATION. - Category 1 TOXIC TO REPRODUCTION (Fertility) - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (kidneys) - Category 2
Hazard pictograms	: 
Signal word	: Danger
Hazard statements	: Causes severe skin burns and eye damage. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.
Hazard Not Otherwise Classified (HNOC)	: Causes digestive tract burns. Causes respiratory tract burns.
Precautionary statements	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves/clothing and eye/face protection. Use only in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Section 2. Hazards identification

- Response** : Get medical attention if you feel unwell. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- Storage** : Store locked up.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : Do not taste or swallow. Wash thoroughly after handling. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Corrosive to digestive tract

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy naphthenic	14 - <20	64742-52-5
Diethylene glycol monobutyl ether	10 - <14	112-34-5
Monoethanolamine	10 - <20	141-43-5
Boric acid	5 - <10	10043-35-3
4-Chloro-3-methylphenol	<3.1	59-50-7
Hexylene Glycol	<2.8	107-41-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of first aid measures

- Eye contact** : Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. In case of contact with eyes, flush eyes with plenty of water for at least 30 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. If not breathing, if breathing is irregular or respiratory arrest occurs, provide artificial respiration, or oxygen by a trained professional, using a pocket type respirator.
- Skin contact** : In case of contact, flush skin with plenty of water for at least 30 minutes. Get medical attention immediately. Immediately remove contaminated clothing and shoes. Wash with plenty of soap and water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Get medical attention immediately. Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : May cause respiratory irritation.
Skin contact : Causes severe burns. May cause an allergic skin reaction.
Ingestion : Corrosive to the digestive tract. May cause burns to mouth, throat and stomach. Nausea may occur in persons who consume alcohol after exposure to this product (Antabuse Syndrome).

Over-exposure signs/symptoms

Eye contact : Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
Inhalation : May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
Corrosive with symptoms of coughing, burning, ulceration, and pain.
May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.
Skin contact : Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage.
Once sensitized, an allergic skin reaction may occur with reddening, swelling, and rash when subsequently exposed to very low levels.
Ingestion : Corrosive with symptoms of coughing, burning, ulceration, and pain.

Potential chronic health effects

May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Suspected of damaging fertility. Suspected of damaging the unborn child.

Notes to physician : Treat symptomatically. No specific treatment.
Protection of first-aiders : If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.
Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst. Toxic and irritating gases/fumes may be given off during burning or thermal decomposition. Water runoff from fire fighting may be corrosive. Vapors may form explosive mixtures with air.

Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods and materials for containment and cleaning up** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Persons with a history of skin sensitization to this product should not be employed in any process in which this product is used.
- Conditions for safe storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 8. Exposure controls/personal protection

Occupational exposure limits

No exposure limit value known.

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Skin protection : Permeation resistant gloves.

Eye/face protection : chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. If contact with product is possible, wear safety glasses with side shields.

Medical Surveillance : Not available.

Section 9. Physical and chemical properties

Physical state	: Liquid.
Color	: Amber.
Odor	: Characteristic.
Odor threshold	: Not available.
pH	: Not available.
Boiling point	: Not available.
Melting point	: Not available.
Flash point	: Not available.
Evaporation rate	: Not available.
Explosion limits	: Not available.
Vapor pressure	: Not available.
Density	: 1.009 g/cm ³
Specific gravity (Relative density)	: Not available.
Solubility in water	:
Partition coefficient: n-octanol/water	: Not available.
Vapor density	: Not available.
Viscosity	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Reducing agents, oxidizing agents, acids and bases
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact	: Causes serious eye damage.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes severe burns. May cause an allergic skin reaction.
Ingestion	: Corrosive to the digestive tract. May cause burns to mouth, throat and stomach. Nausea may occur in persons who consume alcohol after exposure to this product (Antabuse Syndrome).

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.
Inhalation	: May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose. Corrosive with symptoms of coughing, burning, ulceration, and pain. May cause pulmonary edema with symptoms of breathing difficulty and tightness of chest.
Skin contact	: Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage. Once sensitized, an allergic skin reaction may occur with reddening, swelling, and rash when subsequently exposed to very low levels.
Ingestion	: Corrosive with symptoms of coughing, burning, ulceration, and pain.

Potential chronic health effects

Short term exposure

Potential immediate effects : Not available.

Long term exposure

Potential delayed effects : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Suspected of damaging fertility. Suspected of damaging the unborn child.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Information on toxicological effects

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure	Test
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Oral	Rat	>5000 mg/kg	-	-
Diethylene glycol monobutyl ether	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-	-
Monoethanolamine	LD50 Oral	Rat	1515 mg/kg	-	-
Boric acid	LD50 Oral	Mouse	3450 mg/kg	-	-
	LD50 Oral	Rat	2660 mg/kg	-	-
4-Chloro-3-methylphenol	LD50 Oral	Rat	1830 mg/kg	-	-
Hexylene Glycol	LD50 Oral	Rat	3700 mg/kg	-	-
Distillates (petroleum), hydrotreated heavy naphthenic	LD50 Dermal	Rabbit	>5000 mg/kg	-	-
Diethylene glycol monobutyl ether	LD50 Dermal	Rabbit	2764 mg/kg	-	-
Monoethanolamine	LD50 Dermal	Rabbit	1025 mg/kg	-	-
Boric acid	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
4-Chloro-3-methylphenol	LD50 Dermal	Rat	>2000 mg/kg	-	-
Hexylene Glycol	LD50 Dermal	Rabbit	13000 mg/kg	-	-
Distillates (petroleum), hydrotreated heavy naphthenic	LC50 Inhalation Dusts and mists	Rat	>5.53 mg/l	4 hours	-
Diethylene glycol monobutyl ether	LC50 Inhalation Vapor	Rat	>29 mg/l	2 hours	-
4-Chloro-3-methylphenol	LC50 Inhalation Dusts and mists	Rat - Male, Female	>2.871 mg/l * Highest producible concentration. Dosage caused no mortality	4 hours	OECD 403 Acute Inhalation Toxicity

Conclusion/Summary : 4-Chloro-3-methylphenol:* Dosage caused no mortality

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	Reversibility
Diethylene glycol monobutyl ether	Skin - Erythema/Eschar	Rabbit	1.67	1 hours	8 days	Fully reversible in 7 days or less
	Skin - Edema	Rabbit	0	1 hours	8 days	-
	Eyes - Cornea opacity	Rabbit	1.22	-	21 days	Not fully reversible within 21 days or more
	Eyes - Iris lesion	Rabbit	1	-	21 days	Not fully reversible within 21 days or more
	Eyes - Redness of the conjunctivae	Rabbit	3	-	21 days	Fully reversible in 7 days

Section 11. Toxicological information

	Eyes - Edema of the conjunctivae	Rabbit	1	-	21 days	or less Fully reversible in 7 days or less
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Conclusion/Summary

Skin

: Distillates (petroleum), hydrotreated heavy naphthenic:Non-irritating
 Diethylene glycol monobutyl ether:Slight irritant
 Monoethanolamine:corrosive
 Boric acid:mild skin irritation , Rabbit
 Hexylene Glycol:Moderate irritant , Rabbit

Eyes

: Distillates (petroleum), hydrotreated heavy naphthenic:Slight irritant tested on rabbit eyes
 Diethylene glycol monobutyl ether:Irritant.
 Monoethanolamine:SERIOUS EYE DAMAGE/ EYE IRRITATION
 Boric acid:mild eye irritation , Rabbit
 4-Chloro-3-methylphenol:Causes serious eye damage. , Rabbit , OECD 405 Acute Eye Irritation/Corrosion
 Hexylene Glycol:Severe irritant , Rabbit

Respiratory

: Monoethanolamine:Irritant.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Distillates (petroleum), hydrotreated heavy naphthenic	skin	Guinea pig	Not sensitizing
Diethylene glycol monobutyl ether	skin	Guinea pig	Not sensitizing
Boric acid	skin	Guinea pig	Not sensitizing
4-Chloro-3-methylphenol	skin	Guinea pig	Sensitizing
Hexylene Glycol	skin	Guinea pig	Not sensitizing

Skin

: Hexylene Glycol:Non-sensitizer.

Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Diethylene glycol monobutyl ether	Sub-chronic NOAEL Oral	Rat - Male, Female	250 mg/kg bw/day	90 days
	Sub-chronic NOAEL Dermal	Rat - Male, Female	<200 mg/kg bw/day	90 days
	Sub-chronic NOAEL Inhalation Vapor	Rat	14 ppm Highest producible concentration.	90 days
Boric acid	Chronic NOAEL Oral	Rat - Male, Female	149 mg/kg	90 days; daily
4-Chloro-3-methylphenol	Chronic NOEL Oral	Rat - Male	103 mg/kg per day	-
Hexylene Glycol	Chronic NOEL Oral	Rat - Female	134 mg/kg	-
	Sub-chronic NOAEL Oral	Rat	590 mg/kg	6 months; daily

Mutagenicity

Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
Diethylene glycol monobutyl ether	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: with/without	Negative
	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic Metabolic activation: with/without	Negative
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic Metabolic activation: with/without	Negative
Boric acid	OECD 475 Mammalian Bone Marrow Chromosomal Aberration Test	Experiment: In vivo Subject: Mammalian-Animal	Negative
	Ames test	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Negative
Hexylene Glycol	Micronucleus assay	Experiment: In vivo Subject: Mammalian-Animal	Negative
	Ames test	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Negative

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Boric acid	Negative - Oral -	Mouse - Male, Female	-	2 years

Conclusion/Summary : Nitrosamines may be formed with nitrates or nitrous acid under certain conditions . Nitrosamines have shown carcinogenic effects in animal tests.

Product/ingredient name	CAS #	IARC	NTP	OSHA
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	Not classified.	Not classified.	Not classified.
Diethylene glycol monobutyl ether	112-34-5	Not classified.	Not classified.	Not classified.
Monoethanolamine	141-43-5	Not classified.	Not classified.	Not classified.
Boric acid	10043-35-3	Not classified.	Not classified.	Not classified.
4-Chloro-3-methylphenol	59-50-7	Not classified.	Not classified.	Not classified.
Hexylene Glycol	107-41-5	Not classified.	Not classified.	Not classified.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Diethylene glycol monobutyl ether	Negative - Oral	Rat - Female	633 mg/kg NOAEL	20 days; daily

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Distillates (petroleum), hydrotreated heavy naphthenic	Category 3	Not applicable.	Respiratory tract irritation
Diethylene glycol monobutyl ether	Category 3	Not applicable.	Narcotic effects
Boric acid	Category 3	Not applicable.	Respiratory tract irritation
4-Chloro-3-methylphenol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Hexylene Glycol	Category 3	Not applicable.	Narcotic effects

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Diethylene glycol monobutyl ether	Category 2	Not determined	kidneys
Boric acid	Category 2	Not determined	brain, kidneys and liver

Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Oral	8518.1 mg/kg
Dermal	6657.2 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Distillates (petroleum), hydrotreated heavy naphthenic	-	Acute EC50 >1000 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute IC50 >1000 mg/l	Bacteria - Scenedesmus subspicatus	96 hours
	-	Acute LC50 >5000 mg/l	Fish - Oncorhynchus mykiss	96 hours
Diethylene glycol monobutyl ether	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute EC10 >1995 mg/l Fresh water	Bacteria - Activated sludge	30 minutes
	OECD 201 Alga, Growth Inhibition Test	Acute EC50 1101 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	OECD 203 Fish, Acute Toxicity Test	Acute LC50 1300 mg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	OECD 201 Alga, Growth Inhibition Test	Chronic NOEC >100 mg/l Fresh water	Algae - Scenedesmus subspicatus	96 hours
Monoethanolamine	-	Acute EC50 65 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute IC50 2.5 mg/l	Algae - Selenastrum capricornutum	72 hours
	-	Acute LC50 349 mg/l	Fish - Cyprinus carpio	96 hours
	-	Acute NOEC 0.85 mg/l	Daphnia - Daphnia magna	21 days
	-	Chronic NOEC 1 mg/l	Algae - Selenastrum capricornutum	72 hours
	-	Chronic NOEC 1.2 mg/l	Fish - Oryzias latipes	30 days
	-	Acute EC50 133 mg/l	Daphnia	48 hours
Boric acid	-	Acute LC50 229 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours

Section 12. Ecological information

4-Chloro-3-methylphenol	-	Acute LC50 >800 mg/l	Fish	96 hours
	-	Acute LC50 456 mg/l	Fish - Pimephales promelas	96 hours
	-	Acute EC50 30.62 mg/l	Algae - Scenedesmus subspicatus	72 hours
	-	Acute LC50 3.9 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute LC50 0.92 mg/l	Fish - Oncorhynchus mykiss	96 hours
Hexylene Glycol	-	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute LC50 >5000 mg/l	Fish - Carassius auratus	24 hours
	-	Acute LC50 10700 mg/l	Fish - Pimephales promelas	96 hours
	-			

Conclusion/Summary : Not available.

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Distillates (petroleum), hydrotreated heavy naphthenic	OECD 301F Ready Biodegradability - Manometric Respirometry Test	31 % - Inherent - 28 days	44 mg/l	-
Diethylene glycol monobutyl ether	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	92 % - Readily - 28 days	-	-
	OECD 301C Ready Biodegradability - Modified MITI Test (I)	85 % - Readily - 28 days	-	-
Monoethanolamine	OECD 301A Ready Biodegradability - DOC Die-Away Test	>90 % - Readily - 28 days	-	-
4-Chloro-3-methylphenol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	>90 % - Readily - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Distillates (petroleum), hydrotreated heavy naphthenic	-	-	Inherent
Diethylene glycol monobutyl ether	-	50%; 11 day(s)	Readily
Monoethanolamine	-	-	Readily
4-Chloro-3-methylphenol	-	-	Readily

Section 12. Ecological information

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Diethylene glycol monobutyl ether	1	<3	low
Monoethanolamine	-1.31	-	low
4-Chloro-3-methylphenol	3	13	low
Hexylene Glycol	0.58	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

RCRA classification : : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN2491	Ethanolamine	8	III		IB3, T4, TP1
IMDG Class	UN2491	ETHANOLAMINE	8	III		Emergency schedules (EmS) F-A, S-B
IATA-DGR Class	UN2491	ETHANOLAMINE	8	III		Passenger aircraft 852: 5 L Cargo aircraft 856: 60 L

PG* : Packing group

RQ : 0 lbs

Section 15. Regulatory information

SARA 311/312 : Immediate (acute) health hazard
Delayed (chronic) health hazard

SARA Title III Section 302 Extremely Hazardous Substances : None

<u>Ingredient name</u>	<u>CAS number</u>	<u>Concentration (%)</u>
Diethylene glycol monobutyl ether	112-34-5	≤14

SARA Title III Section 313 Toxic Chemicals :

<u>Ingredient name</u>	<u>CAS number</u>	<u>RQ</u>
Diethylene glycol monobutyl ether	112-34-5	NO_RQ
4-Chloro-3-methylphenol	59-50-7	5000 lbs. (2270 kg)

US EPA CERCLA Hazardous Substances (40 CFR 302.4) :

State regulations

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

<u>Ingredient name</u>	<u>CAS number</u>	<u>State Code</u>	<u>Concentration (%)</u>
Monoethanolamine	141-43-5	MA - S, NJ - HS, PA - RTK HS	10 - 15%
4-Chloro-3-methylphenol	59-50-7	MA - S, NJ - HS, PA - RTK HS	1 - 3%
Hexylene Glycol	107-41-5	MA - S, NJ - HS, PA - RTK HS	1 - 3%
triethanolamine	102-71-6	MA - S, NJ - HS, PA - RTK HS	1 - 3%
Diethylene glycol monobutyl ether	112-34-5	NJ - HS, PA - RTK HS	10 - 15%
Boric acid	10043-35-3	NJ - HS	5 - 10%
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	PA - RTK HS	15 - 21%
Tall oil	8002-26-4		15 - 21%
Water	7732-18-5		10 - 15%

Massachusetts Substances: MA - S

Massachusetts Extraordinary Hazardous Substances: MA - Extra HS

New Jersey Hazardous Substances: NJ - HS

Pennsylvania RTK Hazardous Substances: PA - RTK HS

Pennsylvania Special Hazardous Substances: PA - Special HS

California Prop. 65

To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

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U.S. Toxic Substances Control Act : Listed on the TSCA Inventory.

Control Act

Section 16. Other information

Hazardous Material Information System	Health	*	3
	Flammability		1
	Physical hazards		0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme
*=Chronic

Section 16. Other information

The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

National Fire Protection Association (U.S.A.) :



0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe

Our method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided as a customer service.

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Product Safety and Regulatory Affairs

▣ Indicates information that has changed from previously issued version.

Notice to reader

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