SAFETY DATA SHEET

Syntilo CR 68

Section 1. Identification

GHS product identifier Syntilo CR 68

Product code 465383-US03

SDS # 465383

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

Identified uses Metalworking fluid - soluble.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Uses advised against Consult with experts for use other than relevant identified use.

Manufacturer
BP Lubricants USA Inc.
1500 Valley Road
Wayne, NJ 07470
Telephone: +1-888-CASTROL

Supplier
Wakefield Canada Inc.
6950 Creditview Rd
Mississauga, ON L5N 0A6
Canada

Phone number: 1 (416) 252-5511

EMERGENCY HEALTH INFORMATION: +1-800-447-8735

EMERGENCY TELEPHONE NUMBER
1 (613) 996-6666 CANUTEC (Canada)
+1-800-424-9300 (CHEMTREC USA)
+1-703-527-3887 (CHEMTREC outside the US)

Section 2. Hazard identification

Classification of the substance or mixture
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A

GHS label elements

Hazard pictograms

Signal word Warning

Hazard statements
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Precautionary statements

Prevention
P280 - Wear protective gloves. Wear eye or face protection.
P264 - Wash hands thoroughly after handling.

Response
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 - If skin irritation occurs: Get medical attention.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical attention.

Storage Not applicable.

Disposal Not applicable.

Section 2. Hazard identification

Other hazards which do not result in classification

Defatting to the skin.
This product contains complex ionic mixtures within the fluid matrix which are an intrinsic part of the product and cannot be separated from the fluid matrix.
Toxicology testing has shown the ionic-mixture containing products exhibit skin and eye irritation properties that are notably attenuated when compared to the individual acid and base components.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Corrosion inhibitors and additives in aqueous solution.

Ingredient name	Synonyms	% (w/w)	CAS number	
2-Amino-2-methylpropanol	1-Propanol, 2-amino-2-methyl-; AMINOMETHYL PROPANOL; 2-Amino-2-methyl-1-propanol; AMP; 2-Amino-2-methyl-1-propanol (8CA & 9CA); 2-Amino-2-methylpropan-1-ol; Isobutanolamine; 2-Aminodimethylethanol; 2-Aminoisobutanol; 2-hydroxymethyl-2-propylamine; 2,2-Diethylethanolamine	≥5 - ≤10	CAS: 124-68-5	
Benzotriazole	1H-Benzotriazole; 1,2,3-Benzotriazole; Azimidobenzene; 1,2,3-Triazaindene; 1H-Benzo[d][1,2,3]triazole; 1H-1,2,3-benzotriazole; 1H-Benzotraizole; 1,2-AMINOAZOPHENYLENE; 1,2-benzothiazoli-3(2H)-one	≥1 - ≤5	CAS: 95-14-7	
2-(2-aminoethoxy)ethanol	Ethanol, 2-(2-aminoethoxy)-; 2-(2-Aminoethoxy)-ethanol; Diglycolamine; 2-ETHANOL, (2-AMINOETHOXY); 2-aminoethoxyethanol; 2-(2-Hydroxyethoxy)ethylamine	≥1 - ≤5	CAS: 929-06-6	
3,5,5-trimethylhexanoic acid	Hexanoic acid, 3,5,5-trimethyl-; Alkanoic acid (C4-30); Hexanoic acid, 3,5,5-trimethyl	≥1 - ≤5	CAS: 3302-10-1	
undecanedioic acid	Aliphatic dicarboxylic acid (C9-13); UNDECANE-1,11-DIOIC ACID	≥1 - ≤5	CAS: 1852-04-6	
dodecanedioic acid	Decane-1,10-dicarboxylic acid; n-dodecanedioic acid; Aliphatic dicarboxylic acid (C9-13); SL-AH; 1,12-Dodecanedioic acid; 1,10-Dicarboxydecane; 1,10-Decanedicarboxylic acid; Decamethylenedicarboxylic acid; DODECANDIOIC ACID	≥1 - ≤5	CAS: 693-23-2	

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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 necessary first aid measures

Eye contact
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.

Skin contact
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention. If skin irritation or rash occurs: Get medical advice/attention.

Inhalation
If inhaled, remove to fresh air. 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. Get medical attention if symptoms occur.

Ingestion
Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Wash out mouth with water if person is conscious. Get medical attention if adverse health effects persist or are severe.

Protection of first-aiders
No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact
Causes serious eye irritation.

Inhalation
No known significant effects or critical hazards.

Skin contact
Causes skin irritation. Defatting to the skin.

Ingestion
Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact
Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation
No specific data.

Skin contact
Adverse symptoms may include the following:
irritation
redness
dryness
cracking

Ingestion
No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician
Treatment should in general be symptomatic and directed to relieving any effects. 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.

Specific treatments
No specific treatment.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
In case of fire, use water fog, alcohol resistant foam, dry chemical or carbon dioxide extinguisher or spray.

Unsuitable extinguishing media
Do not use water jet.

Specific hazards arising from the chemical
In a fire or if heated, a pressure increase will occur and the container may burst.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products

Combustion products may include the following:
carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)
nitrogen oxides (NO, NO_2 etc.)

Special protective actions for fire-fighters

No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Special protective equipment for fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Contact emergency personnel. 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. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

For emergency responders

Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. See also the information in "For non-emergency personnel".

Wear appropriate personal protective equipment, as indicated in Section 8.

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

Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Contaminated absorbent material may pose the same hazard as the spilled product. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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. Avoid contact of spilled material and runoff with soil and surface waterways. Avoid prolonged or repeated contact with skin. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid and as a result may induce allergic skin reactions. Evaporation of water from soluble cutting fluids during use may lead to an increase in concentration which may result in the development of skin conditions due to irritation and defatting. It is important to monitor fluid strength on a regular basis with a refractometer and maintain it at the recommended concentration. Lubricants from other sources and other contaminants should be minimized. Swarf and other debris should be removed. To maintain optimum performance and minimize bacterial spoilage, machine tool coolant systems should be cleaned on a regular basis.

Section 7. Handling and storage

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

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. Store and use only in equipment/containers designed for use with this product. 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. DO NOT ADD NITRITES TO THIS FLUID.

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.
Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.
Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Undiluted fluid: Chemical goggles.
Diluted fluid: Safety glasses with side shields.

Skin protection

Hand protection

Wear suitable gloves. Undiluted fluid: Wear chemical resistant gloves. Recommended: nitrile gloves.
Diluted fluid: Wear protective gloves if prolonged or repeated contact is likely. Recommended: nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of

Section 8. Exposure controls/personal protection

protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Body protection

Use of protective clothing is good industrial practice.
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.
For protection against metal working fluids, respiratory protection that is classified as “resistant to oil” (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m3), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m3).
Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state Liquid.

Color Yellow.

Odor Not available.

Odor threshold Not available.

pH 9.2 [Conc. (% w/w): 5%]

Melting point/freezing point Not available.

Boiling point or initial boiling point and boiling range Not available.

Flash point Closed cup: >100°C (>212°F) [Estimated. Water content interferes with flash point determination.]

Pour point Not available.

Drop Point Not available.

Evaporation rate Not available.

Flammability Not available.

Lower and upper explosion limit/flammability limit Not available.

Vapor pressure

Section 9. Physical and chemical properties

Ingredient name	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Water	17.5	2.3				
2-Amino-2-methylpropanol	0.33753	0.045	ASTM E 1194			
Benzotriazole	0.038	0.0051				
3,5,5-trimethylhexanoic acid	0.00345	0.00046				
undecanedioic acid	<0.075	<0.01	OECD 104			

Relative vapor density Not available.

Density >1000 kg/m³ (>1 g/cm³) at 15.6°C

Relative density Not available.

Solubility(ies)

Media	Result
water	Soluble

Partition coefficient: n-octanol/water Not applicable.

Auto-ignition temperature

Ingredient name	°C	°F	Method
2-Amino-2-methylpropanol	438	820.4	ASTM D 2161
Benzotriazole	210	410	
2-(2-aminoethoxy)ethanol	370	698	

Decomposition temperature Not available.

Viscosity Not available.

VOC 86.04 g/l

Particle characteristics

Median particle size Not applicable.

Section 10. Stability and reactivity

Reactivity No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

Chemical stability The product is stable.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid Avoid excessive heat.

Incompatible materials Reactive or incompatible with the following materials: oxidizing materials. Slightly reactive or incompatible with the following materials: acids.

Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
2-Amino-2-methylpropanol	**Rat - Oral - LD50** 2900 mg/kg OECD 401 **Rabbit - Dermal - LD50** >2000 mg/kg OECD 402
Benzotriazole	**Rat - Oral - LD50** 500 mg/kg OECD 423 **Rabbit - Dermal - LD50** >2000 mg/kg
3,5,5-trimethylhexanoic acid	**Rat - Oral - LD50** 1160 mg/kg OECD 401 **Rat - Dermal - LD50** >2000 mg/kg
undecanedioic acid	**Rat - Oral - LD50** >5000 mg/kg **Rabbit - Dermal - LD50** >6000 mg/kg

Skin corrosion/irritation

Product/ingredient name	Result
2-Amino-2-methylpropanol	**Rabbit - Skin - Irritant**
Benzotriazole	**Rabbit - Skin - Non-irritant to skin.** OECD 404
3,5,5-trimethylhexanoic acid	**Rabbit - Skin - Irritant** OECD 404
undecanedioic acid	**Rabbit - Skin - Not irritant** OECD 404

Serious eye damage/eye irritation

Product/ingredient name	Result
2-Amino-2-methylpropanol	**Rabbit - Eyes - Severe irritant**
Benzotriazole	**Rabbit - Eyes - Irritant** OECD 405
3,5,5-trimethylhexanoic acid	**Rabbit - Eyes - Severe irritant** OECD 405
undecanedioic acid	**Rabbit - Eyes - Irritant** OECD 405

Respiratory corrosion/irritation

Not available.

Respiratory or skin sensitization

Product/ingredient name	Result

2-Amino-2-methylpropanol	**Guinea pig - skin** OECD 406 Result: Not sensitizing
Benzotriazole	**Guinea pig - skin** OECD 406 Result: Not sensitizing
3,5,5-trimethylhexanoic acid	**Guinea pig - skin** OECD 406 Result: Not sensitizing
undecanedioic acid	**Guinea pig - skin** OECD 406 Result: Not sensitizing

Germ cell mutagenicity

Product/ingredient name	Result
2-Amino-2-methylpropanol	**In vitro - Bacteria** OECD 471 Result: Negative **In vitro - Mammalian-Human** OECD 476 Result: Negative **In vivo - Mammalian-Human** OECD 474 Result: Negative
Benzotriazole	**In vitro - Bacteria** Result: Negative **In vitro - Mammal - species unspecified** In vitro Mammalian Cell Gene Mutation Test Result: Negative **In vivo - Mammal - species unspecified** Mammalian Erythrocyte Micronucleus Test Result: Negative
3,5,5-trimethylhexanoic acid	**In vitro - Bacteria** Bacterial Reverse Mutation Test Result: Negative **In vitro - Mammal - species unspecified** In vitro Mammalian Chromosomal Aberration Test Result: Negative **In vitro - Mammal - species unspecified** In vitro Mammalian Cell Gene Mutation Test Result: Negative
undecanedioic acid	**In vitro - Bacteria** Bacterial Reverse Mutation Test Result: Negative **In vitro - Mammal - species unspecified** Result: Negative **In vivo - Mammal - species unspecified** Result: Negative

Carcinogenicity

Product/ingredient name	Result
Benzotriazole	**Rat - Oral - Unspecified** OECD 451 Result: Negative

Section 11. Toxicological information

Reproductive toxicity

Product/ingredient name	Result
2-Amino-2-methylpropanol	**Rat - Oral** OECD 443 Maternal toxicity: Negative Fertility effects: Negative Developmental: Negative
Benzotriazole	**Rat - Oral** OECD 421 Maternal toxicity: Negative Fertility effects: Negative Developmental: Negative
3,5,5-trimethylhexanoic acid	**Rat - Oral** OECD 443 Maternal toxicity: Positive Fertility effects: Negative Developmental: Negative

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact	Causes serious eye irritation.
Inhalation	No known significant effects or critical hazards.
Skin contact	Causes skin irritation. Defatting to the skin.
Ingestion	Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	No specific data.
Skin contact	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	No specific data.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] Not available.

General No known significant effects or critical hazards.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Syntilo CR 68	5654.0	N/A	N/A	N/A	N/A
2-Amino-2-methylpropanol	2500	N/A	N/A	N/A	N/A
Benzotriazole	500	N/A	N/A	N/A	N/A
3,5,5-trimethylhexanoic acid	500	N/A	N/A	N/A	N/A

Additional information Alkanolamine: This product contains an alkanolamine. In all metalworking fluids containing amines, there is a potential for forming nitrosamines which are animal carcinogens. Therefore, no nitrites or related nitrosating agents should be added to such compositions.

Section 12. Ecological information

Toxicity

No testing has been performed by the manufacturer.

Product/ingredient name	Result
2-Amino-2-methylpropanol	**Acute - ErC50** OECD 201 Algae >100 mg/l [72 hours] **Acute - LC50** OECD 202 Daphnia >100 mg/l [48 hours] **Acute - LC50**

Section 12. Ecological information

	OECD 203 Fish >100 mg/l [96 hours] **Chronic - NOEC** OECD 201 Algae 6.6 mg/l [72 hours]
Benzotriazole	**Acute - ErC50** OECD 201 Algae 75 mg/l [72 hours] **Acute - EC50** OECD 202 Daphnia 15.8 mg/l [48 hours] **Acute - LC50** OECD 203 Fish 180 mg/l [96 hours] **Acute - EC50** OECD 209 Micro-organism 940 mg/l [3 hours] **Chronic - EC10** OECD 201 Algae 1.18 mg/l [72 hours] **Chronic - EC10** OECD 211 Daphnia 0.97 mg/l [21 days]
3,5,5-trimethylhexanoic acid	**Acute - EC50** OECD 201 Algae 81 mg/l [72 hours] **Acute - EC50** OECD 202 Daphnia 68 mg/l [48 hours] **Acute - LC50** OECD 203 Fish 123 mg/l [96 hours] **Acute - EC50** OECD 209 Micro-organism 470 mg/l [3 hours] **Chronic - NOEC** OECD 201 Algae 10 mg/l [72 hours]
undecanedioic acid	**Acute - EL50** ISO 10253 Algae 38.7 mg/l [72 hours] **Acute - EC50** OECD 202 Daphnia >100 mg/l [48 hours] **Acute - LC50**

Section 12. Ecological information

OECD 203
Fish
>100 mg/l [96 hours]

Acute - EC20
ISO 8192
Micro-organism
>1000 mg/l [3 hours]

Chronic - NOEC
ISO 10253
Algae
3 mg/l [72 hours]

Persistence and degradability

Expected to be biodegradable.

Product/ingredient name	Result
2-Amino-2-methylpropanol	OECD 301F 89.3% [28 days] - Readily
Benzotriazole	OECD 301D 0% [28 days] - Not readily
3,5,5-trimethylhexanoic acid	OECD 301A 96% [21 days] - Readily
undecanedioic acid	OECD 301D 71% [28 days] - Readily

Bioaccumulative potential

Not available.

Product/ingredient name	$LogP_{ow}$	BCF	Potential
2-Amino-2-methylpropanol	-0.63	-	Low
Benzotriazole	1.44	2.8	Low
2-(2-aminoethoxy)ethanol	-1.89	-	Low
3,5,5-trimethylhexanoic acid	3.2	-	Low
undecanedioic acid	2.8	-	Low
dodecanedioic acid	3.2	-	Low

Mobility in soil

Soil/Water partition coefficient Not available.

Mobility Liquid. Soluble in water.

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. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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. Diluted Fluid The spent diluted fluid comprises a relatively stable emulsion. Dispose of via

Section 13. Disposal considerations

an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques (e.g. emulsion splitting, coagulation and filtration) approved by the local authority. Spent fluid should never be disposed of down the drain. The aqueous phase should not be discharged into sewage systems unless provided for by local regulations; the non-aqueous phase should be disposed of as undiluted fluid. Note that separated aqueous solutions or effluents may contain metal salts as well as traces of oil and must be checked for conformity in these respects against consents given by the authorities before disposal. Further treatment may be required.

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

Special precautions for user Not available.

Section 15. Regulatory information

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

Other regulations

Australia inventory (AIIC) At least one component is not listed.

Canada inventory At least one component is not listed.

China inventory (IECSC) All components are listed or exempted.

Japan inventory (CSCL) All components are listed or exempted.

Korea inventory (KECI) All components are listed or exempted.

Philippines inventory (PICCS) At least one component is not listed.

Taiwan Chemical Substances Inventory (TCSI) All components are listed or exempted.

United States inventory (TSCA 8b) All components are active or exempted.

REACH Status For the REACH status of this product please consult your company contact, as identified in Section 1.

Section 16. Other information

History

Date of issue/Date of revision	10/31/2025
Date of previous issue	05/03/2025.
Version	10.02
Prepared by	Product Stewardship

Key to abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS Number = Chemical Abstracts Service Registry Number
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HPR = Hazardous Products Regulations
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
UN = United Nations
Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

References Not available.

Indicates information that has changed from previously issued version.

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.