

Brayco 599

In accordance with Industrial Safety and Health Act

MSDS Approval Number

AA00907-0000000173

Section 1. Chemical product and company identification

Product name Brayco 599
Code 451699-US03
SDS no. 451699
Supplier BP Korea Ltd.
19F., 302, Teheran-ro, Gangnam-gu, Seoul, 06210
Republic of Korea

Tel: +82 -1577-1904

EMERGENCY TELEPHONE NUMBER Carechem: +65 3158 1074 (24/7)

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

Use of the substance/mixture Rust preventive.
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Section 2. Hazards identification

GHS Classification SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
SKIN SENSITISATION - Category 1B
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

GHS label elements, including precautionary statements

Symbol



Signal word

Warning

Hazard statements

H315 - Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P280 - Wear protective gloves. Wear eye or face protection.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapour.
P264 - Wash hands thoroughly after handling.
P272 - Contaminated work clothing should not be allowed out of the workplace.

Response

P391 - Collect spillage.
P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.
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.

Section 2. Hazards identification

Storage	Not applicable.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not result in classification	Defatting to the skin.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Synthetic base stock. Proprietary performance additives. Highly refined base oil (IP 346 DMSO extract < 3%).

Hazardous ingredients

Ingredient name	Synonym	CAS number	%
2,5-Furandione, 3-(dodecenyl)dihydro-, reaction products with propylene oxide	2,5-Furandione, 3-(dodecen-1-yl)dihydro-, reaction products with propylene oxide; 3-(Dodecenyl)dihydro-2,5-furandione reaction products with propylene oxide; REACTION PRODUCT, 2,5-FURANDIONE, DODECENYL, DIHYDRO, PROPYLENE GLYCOL; Succinic anhydride, alkylation products with C12-rich branched olefins from propene oligomerisation, hydrolyzed, esterification prod	68411-58-5	10.5
Distillates (petroleum), hydrotreated heavy naphthenic	Baseoil - unspecified; Distillates, petroleum, hydrotreated heavy naphthenic; Hydrotreated heavy naphthenic distillate, solvent extract, petroleum; Mineral oil, petroleum distillates, hydrotreated heavy naphthenic; Mineral oil, petroleum distillates, hydrotreated (severe) heavy naphthenic; Distillates (petroleum), hydro-treated heavy naphthenic; Hydrotreated heavy naphthenic distillate solvent extract (petroleum); OILS, MINERAL, HEAVY NAPHTHENIC, HYDROTREATED; OILS, NAPHTHENIC, HYDROGENATED; SEVERELY SOLVENT REFINED HEAVY PARAFFINIC DISTILLATES;	64742-52-5	6

Section 3. Composition/information on ingredients

Propane-1,2-diol, propoxylated	<p>HYDROTREATED LIGHT PETROLEUM DISTILLATE Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-; Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy-; Polypropylene glycol; α-hydro-ω-hydroxypoly(oxypropylene); PPO; polymethyloxirane; polyoxypropylene; polypropylene glycol; poly[oxy(methane-1,2-ethanediyl)]; propylene glycol polyol; poly(1,2-epoxypropane); polypropylene oxide polyols; PO polyols; poly(propylene oxide); poly(oxypropylene); α-hydro-ω-hydroxypoly[oxy(methane-1,2-ethanediyl)]; Laprol 702; Polypropylene glycol 150</p>	25322-69-4	6
tris(methylphenyl)phosphate	<p>Phosphoric acid, tris(methylphenyl) ester; Tricresyl phosphate; tritolyl phosphate; Phosphoric acid, tritolyl ester; TRICRESYL PHOSPHATE with more than 3 per cent ortho isomer; TCP; Tris(phenyl,monomethylphenyl, dimethylphenyl, ethylphenyl, nonylphenylmixed) phosphate; Triphenyl (or monomethylphenyl, dimethylphenyl, nonylphenyl) phosphate; Phosphoric acid, tricresyl ester; TRICRESYL PHOSPHATE (1); Plasticizer TCP</p>	1330-78-5	2.2776
2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol	<p>1H-Imidazole-1-ethanol, 2-(8-heptadecen-1-yl)-4,5-dihydro-; 1H-Imidazole-1-ethanol, 2-(8-heptadecenyl)-4,5-dihydro-; 2-Imidazoline-1-ethanol, 2-(8-heptadecenyl)-; 2-(8-heptadecenyl)-2-imidazoline-1-ethanol; 1-(2-Hydroxyethyl)-2-(heptadecenyl)imidazoline; OLEYL HYDROXYETHYL IMIDAZOLINE; 2-</p>	95-38-5	1

Section 3. Composition/information on ingredients

<p>Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene</p>	<p>(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol/(Z)-2-(8-heptadecenyl)-4,5-dihydro-1H-imidazole-1-ethanol; Oleyl imidazoline; 2-(2-(Heptadec-8-en-1-yl)-4,5-dihydro-1H-imidazol-1-yl)ethanol; 2-Alkyl(or alkenyl,C8-18)-1-hydroxyethylimidazoline; 2-Alkyl (or alkenyl, C7-23)-1-hydroxyethylimidazoline</p>	<p>68411-46-1</p>	<p>0.9906</p>
<p>n-phenyl-1-naphthylamine</p>	<p>Diphenylamine, diisobutylene reaction products; N-Phenylbenzenamine, 2,4,4-trimethyl-1-pentene, and 2,4,4-trimethyl-2-pentene reaction products; n-phenylbenzenamine reaction products with 2,4,4-trimethylpentenes; N-Phenylbenzeneamine, 2,4,4-trimethyl-1-pentene, and 2,4,4-trimethyl-2-pentene reaction product; N-Phenylbenzenamine, 2,4,4-trimethyl-1-pentene, and 2,4,4-trimethyl-2-pentene reaction product; N-Phenylbenzenamine, reaction product with diisobutylene; Diphenylamine, diisobutylene reaction product; Diphenylamine, octylated; N-Phenylbenzenamine reaction products with 2,4,4-trimethylpentene; REACTION PRODUCT, N-PHENYL ANILINE WITH 2,4,4-TRIMETHYLPENTENE; REACTION PRODUCT, BENZENAMINE, N-PHENYL- WITH 2, 4,4-TRIMETHYLPENTENE</p> <p>1-Naphthalenamine, N-phenyl-; N-Phenyl-1-naphthylamine; 1-Naphthylamine, N-phenyl-; N-phenylnaphthalen-1-amine; N-phenyl-1-naphthylamine; N-1-naphthylaniline; N-Phenyl-alpha-naphthylamine; N-(1-Naphthyl)aniline;</p>	<p>90-30-2</p>	<p>0.819</p>

Section 3. Composition/information on ingredients

	1-Anilino-naphthalene; Neozone A; Antioxidant A; 1-(N-Phenylamino) naphthalene		
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Non-hazardous ingredients

Ingredient name	Synonym	CAS number	%
Trade secret.	Trade secret.	Trade secret.	51.706
Trade secret.	Trade secret.	Trade secret.	22.16

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 or the environment and hence require reporting in this section.

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

Section 4. 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 recognised 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. Get medical attention if adverse health effects persist or are severe.
<u>Indication of immediate medical attention and special treatment needed, if necessary</u>	
Specific treatments	No specific treatment.
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.
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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Section 5. Firefighting measures

<u>Extinguishing media</u>	
Suitable	Use foam or all-purpose dry chemical to extinguish.
Not suitable	Do not use water jet.
Specific hazards arising from the chemical	Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects.

Section 5. Firefighting measures

Hazardous thermal decomposition products

Combustion products may include the following:
phosphorus oxides
carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)
nitrogen oxides (NO, NO₂ etc.)

Special protective equipment for fire-fighters

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

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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 spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

Environmental precautions

Avoid dispersal of spilt 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and material 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 the 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 spilt 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 vapour 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 spilt material and runoff with soil and surface waterways.

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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated heavy naphthenic	ACGIH TLV (United States). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction

Biological exposure indices

No exposure indices known.

Other ingredients including trade secret: not applicable

Recommended monitoring procedures

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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.

Personal protective equipment

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.

Eye protection

Avoid contact with eyes. Chemical splash goggles.

Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. 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 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

Section 8. Exposure controls/personal protection

consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Skin 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.

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.

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.

Colour

Amber. [Dark]

Odour

Not available.

Odour threshold

Not available.

pH

Not applicable.

Melting/freezing point

Not available.

Boiling point, initial boiling point, and boiling range

Not available.

Flash point

Open cup: 218°C (424.4°F) [Cleveland]

Evaporation rate

Not available.

Flammability

Not available.

Lower and upper explosive (flammable) limits

Not available.

Vapour pressure

<0.01 kPa

Solubility(ies)

Media	Result
water	Not soluble

Vapour density

Not available.

Relative density

Not available.

Density

<1000 kg/m³ (<1 g/cm³) at 15.6°C

Partition coefficient: n-octanol/water

Not applicable.

Auto-ignition temperature

Ingredient name	°C	°F	Method
Propane-1,2-diol, propoxylated	305	581	EU A.15

Decomposition temperature

Not available.

Viscosity

Kinematic: 44 mm²/s (44 cSt) at 40°C

Section 9. Physical and chemical properties

Molecular weight Not applicable as it is a mixture

Particle characteristics

Median particle size Not applicable.

Section 10. Stability and reactivity

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 polymerisation will not occur.

Conditions to avoid No specific data.

Incompatible materials Reactive or incompatible with the following materials: oxidising materials.

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

Section 11. Toxicological information

Information on likely routes of exposure Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Acute toxicity

Inhalation Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion Irritating to mouth, throat and stomach.

Skin contact Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation No specific data.

Ingestion No specific data.

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

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

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Product/ingredient name	Test	Species	Result	Exposure	Remarks
2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol	LD50 Oral	Rat	1265 mg/kg	-	-
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	LC50 Dermal	Rat	>2000 mg/kg	-	-
	LC50 Oral	Rat	>5000 mg/kg	-	-

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Test authority / Test number	Species	Route / Result	Conc.	Remarks	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	OECD	405	Rabbit	Eyes - Visible necrosis	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Visible necrosis	-	
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	OECD	405	Rabbit	Eyes - Not irritant	-	-
	OECD	404	Rabbit	Skin - Slightly irritating to the skin.	-	-

Skin corrosion or irritation Not available for product and all ingredients.

Serious eye damage/eye irritation Not available for product and all ingredients.

Respiratory Irritation Not available for product and all ingredients.

Sensitisation

Respiratory Sensitisation Not available for product and all ingredients.

Skin Sensitisation

Product/ingredient name	Route of exposure	Species	Result	Remarks
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	skin	Guinea pig	Not sensitising	Based on studies with similar substances.
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	skin	Guinea pig	Not sensitising	-

CMR - ISHA Article 42 Public Notice No 2016-41 Occupational Exposure Limits

Product/ingredient name	CAS number	Classification
Not available for product and all ingredients.		

Carcinogenicity

Not available for product and all ingredients.

Germ cell mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	471 Bacterial Reverse Mutation Test	Experiment: In vitro	Negative	Based on studies with similar substances.
	473 In vitro Mammalian Chromosomal Aberration Test	Subject: Bacteria Experiment: In vitro	Negative	Based on studies with similar substances.

Section 11. Toxicological information

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	OECD 471	Subject: Mammal - species unspecified Experiment: In vitro	Negative	-
	OECD 487	Subject: Bacteria Experiment: In vitro	Negative	-
	OECD 476	Subject: Mammalian-Animal Experiment: In vitro Subject: Mammalian-Animal	Negative	-

Reproductive toxicity

Product/ ingredient name	Test detail	Species	Exposure	Developmental toxin	Maternal toxicity	Fertility	Remarks
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	OECD 422	Rat	Oral -	Negative	Positive	Negative	Based on studies with similar substances.
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	OECD 443	Rat	Oral -	Negative	Negative	Positive	-

Teratogenicity 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.

Specific target organ toxicity (single exposure)

Not available for product and all ingredients.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	Category 2	oral	digestive system, thymus
N-phenyl-1-naphthalenamine	Category 2	-	-

Potential chronic health effects

General No known significant effects or critical hazards.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Aspiration hazard

Not available for product and all ingredients.

Other information Not available.

Section 12. Ecological information

Ecotoxicity Water polluting material. May be harmful to the environment if released in large quantities. This material is toxic to aquatic life with long lasting effects.

Persistence/degradability

Not expected to be rapidly degradable.

Mobility in soil Liquid. insoluble in water.

Bioaccumulative potential 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 minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal precautions 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 spill material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	IMDG	IATA
A. UN number	UN3082	UN3082
B. UN proper shipping name	Environmentally hazardous substance, liquid, n. o.s. . Marine pollutant (2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol, tris(methylphenyl) phosphate)	Environmentally hazardous substance, liquid, n. o.s. (2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol, tris(methylphenyl)phosphate)
C. Transport hazard class(es)	9  	9  
D. Packing group	III	III
E. Environmental hazards	Yes.	Yes.
F. Additional information	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. Emergency schedules F-A, S-F	This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

Special precautions for user Not available.

Section 15. Regulatory information

Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) None of the components are listed.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:
Distillates (petroleum), hydrotreated heavy naphthenic

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) The following components are listed: aniline

ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) None of the components are listed.

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) The following components are listed: metal working fluids: oil mist, mineral

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) None of the components are listed.

Regulation according to Chemicals Control Act

Article 20 Toxic Chemicals (K-Reach Article 20) Not applicable

Article 18 Prohibited (K-Reach Article 27) None of the components are listed.

Article 20 Restricted (K-Reach Article 27) None of the components are listed.

CCA Article 11 (TRI) None of the components are listed.

CCA Article 39 (Accident Precaution Chemicals) None of the components are listed.

Dangerous Materials Safety Management Act
Class: Class 4 - Flammable Liquid
Item: 6. Class 4 petroleums
Threshold: 6000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited

Wastes regulation Designated Waste

Regulation according to other foreign laws

Australia inventory (AIIIC) All components are listed or exempted.

Canada inventory All components are listed or exempted.

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

REACH Status The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

Section 15. Regulatory information

Japan inventory (CSCL)	All components are listed or exempted.
Korea inventory (KECI)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Taiwan inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are active or exempted.

Section 16. Other information

History

Source of Information

Sources of key data used to compile the Safety Data Sheet: Hazard assessment review data, toxicological reviews, and product physical properties; component supplier hazard communication data; and other publically available resources.

Date first prepared

19/09/2012

Number of revisions and date of last revision

15.01 06/11/2024.

Prepared by

Product Stewardship

Key to abbreviations

AMP = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.
ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail
ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS Number = Chemical Abstracts Service Registry Number
HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.
ICAO = International Civil Aviation Organization.
IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.
IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.
IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.
NOHSC = National Occupational Health & Safety Commission, Australia
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]
TWA = Time weighted average
STEL = Short term exposure limit
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.
TCCA = Toxic Chemical Control Act
GHS = Global Harmonized System
ISHA = Industrial Safety and Health Act
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

Section 16. Other information

✔ Indicates information that has changed from previously issued version.

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