SAFETY DATA SHEET

DULUX GALVANISED IRON PRIMER CREAM

Section 1. Identification

Product identifier : DULUX GALVANISED IRON PRIMER CREAM

Recommended use of the chemical and restrictions on use

Identified uses
Consumer use

Uses advised against
None

Product use : Solvent borne coating for interior and exterior use.

Supplier's details

ICI DULUX (PTY) LTD
NO. 1 PAINTS PLACE
DICKENS ROAD
UMBOGINTWINI
4126
SOUTH AFRICA

e-mail address of person responsible for this SDS : ZA.Helpline@akzonobel.com

Telephone number : Customer Care 0860 330 111 (Available week days from 08:00 to 16:30).
Emergency details: after hours: refer to website for MSDS.

Section 2. Hazard identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
SKIN SENSITIZATION - Category 1
AQUATIC HAZARD (ACUTE) - Category 2
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Section 2. Hazard identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Highly flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Toxic to aquatic life with long lasting effects.

Precautionary statements

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling.

Response : Collect spillage. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage : Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national or international regulations.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	%	CAS number
butan-1-ol	≤9	71-36-3
xylene	≤5.5	1330-20-7
trizinc bis(orthophosphate)	≤5	7779-90-0
2-methylpropan-1-ol	≤2.5	78-83-1
Urea, polymer with formaldehyde, isobutylated	≤3	68002-18-6
pentan-2-ol	≤2	6032-29-7
Propan-2-ol	≤2.5	67-63-0
ethylbenzene	≤1.5	100-41-4
Phosphoric acid	≤3	7664-38-2
maleic anhydride	≤0.1	108-31-6

Section 3. Composition/information on ingredients

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

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses if easy to do. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. 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.

Skin contact : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Section 4. First aid measures

Ingestion : Adverse symptoms may include the following:
stomach pains

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

Notes to physician : 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.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
phosphorus oxides
halogenated compounds
carbonyl halides
metal oxide/oxides

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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

For non-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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Section 6. Accidental release measures

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

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. 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 a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethanol	**DOL OEL (South Africa, 3/2021). Notes: Occupational exposure limit – restricted limit** STEL: 2000 ppm 15 minutes.
butan-1-ol	**ACGIH TLV (United States, 1/2022). Notes: 2002 Adoption.** TWA: 20 ppm 8 hours.
xylene	**DOL OEL (South Africa, 3/2021). [xylene, o-, m-, p- or mixed isomers] Absorbed through skin. Notes: Occupational exposure limit – restricted limit** TWA: 200 ppm 8 hours. STEL: 300 ppm 15 minutes.
2-methylpropan-1-ol	**DOL OEL (South Africa, 3/2021). Notes: Occupational exposure limit – restricted limit** TWA: 100 ppm 8 hours.
Propan-2-ol	**DOL OEL (South Africa, 3/2021). Notes: Occupational exposure limit – restricted limit** TWA: 400 ppm 8 hours. STEL: 800 ppm 15 minutes.
ethylbenzene	**DOL OEL (South Africa, 3/2021). Absorbed through skin. Notes: Occupational exposure limit – restricted limit** TWA: 40 ppm 8 hours.
Phosphoric acid	**DOL OEL (South Africa, 3/2021). Notes: Occupational exposure limit – restricted limit** TWA: 2 mg/m³ 8 hours. STEL: 6 mg/m³ 15 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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. 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 8. Exposure controls/personal protection

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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 : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Wear a respirator conforming to EN140 with type A/P2 filter or better.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Section 9. Physical and chemical properties and safety characteristics

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

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Characteristic.

Odor threshold : Not available.

pH : Not available. [DIN EN 1262]

Melting point/freezing point : Not available.

Boiling point, initial boiling point, and boiling range : 78°C (172.4°F)

Flash point : Closed cup: 12°C (53.6°F) [Pensky-Martens]

Flammability : Not available.

Lower and upper explosion limit : Greatest known range: Lower: 3.3% Upper: 19% (ethanol)

Vapor pressure :

Section 9. Physical and chemical properties and safety characteristics

Ingredient name	Vapor Pressure at 20˚C			Vapor pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
ethanol	42.95	5.7				
Propan-2-ol	33	4.4				
2-methylpropan-1-ol	<12	<1.6	DIN EN 13016-2			

Relative vapor density : Not available.

Relative density : 1.022

Solubility(ies) :

Media	Result
cold water	Not soluble [OECD (TG 105)]

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature :

Ingredient name	°C	°F	Method
pentan-2-ol	342.85	649.1	
butan-1-ol	355	671	EU A.15
2-methylpropan-1-ol	415	779	

Decomposition temperature : Not available.

Viscosity : Kinematic (room temperature): 186 mm^2/s (186 cSt) [DIN EN ISO 3219]
Kinematic (40°C (104°F)): 20 mm^2/s (20 cSt) [DIN EN ISO 3219]

Particle characteristics

Median particle size : Not applicable.

Percentage of particles with aerodynamic diameter ≤ 10 µm : 0

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 : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

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	Species	Dose	Exposure
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
xylene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Subcutaneous	Rat	1700 mg/kg	-
trizinc bis(orthophosphate)	LD50 Intraperitoneal	Mouse	552 mg/kg	-
	LD50 Intraperitoneal	Rat	551 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Guinea pig	19900 mg/m³	4 hours
	LC50 Inhalation Vapor	Mouse	15500 mg/m³	2 hours
	LC50 Inhalation Vapor	Rabbit	2630 mg/m³	4 hours
	LC50 Inhalation Vapor	Rat	19200 mg/m³	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Intraperitoneal	Guinea pig	1201 mg/kg	-
	LD50 Intraperitoneal	Mouse	544 mg/kg	-
	LD50 Intraperitoneal	Mouse	544 mg/kg	-
	LD50 Intraperitoneal	Rabbit	323 mg/kg	-
	LD50 Intraperitoneal	Rat	720 mg/kg	-
	LD50 Intravenous	Mouse	417 mg/kg	-
	LD50 Intravenous	Rat	340 mg/kg	-
	LD50 Oral	Mouse	3500 mg/kg	-
	LD50 Oral	Rabbit	74.1 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-
Urea, polymer with formaldehyde, isobutylated	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	>5 g/kg	-
pentan-2-ol	LD50 Oral	Rabbit	2821 mg/kg	-
Propan-2-ol	LC50 Inhalation Gas.	Rat	16000 ppm	8 hours
	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Intraperitoneal	Guinea pig	2560 mg/kg	-
	LD50 Intraperitoneal	Mouse	4477 mg/kg	-
	LD50 Intraperitoneal	Rabbit	667 mg/kg	-
	LD50 Intraperitoneal	Rat	2735 mg/kg	-
	LD50 Intravenous	Mouse	1509 mg/kg	-
	LD50 Intravenous	Rabbit	1184 mg/kg	-
	LD50 Intravenous	Rat	1088 mg/kg	-
	LD50 Oral	Mouse	3600 mg/kg	-
	LD50 Oral	Mouse	3600 mg/kg	-
	LD50 Oral	Rabbit	6410 mg/kg	-
	LD50 Oral	Rat	5045 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
ethylbenzene	LC50 Inhalation Gas.	Rabbit	4000 ppm	4 hours
	LC50 Inhalation Vapor	Mouse	35500 mg/m³	2 hours
	LC50 Inhalation Vapor	Rat	55000 mg/m³	2 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Dermal	Rabbit	17800 uL/kg	-
	LD50 Intraperitoneal	Mouse	2624 uL/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
Phosphoric acid	LD50 Oral	Mouse	1.25 g/kg	-
	LD50 Oral	Rat	1.25 g/kg	-
maleic anhydride	LD50 Dermal	Guinea pig	>20 g/kg	-
	LD50 Dermal	Rabbit	2620 mg/kg	-
	LD50 Intraperitoneal	Rat	97 mg/kg	-
	LD50 Oral	Guinea pig	390 mg/kg	-
	LD50 Oral	Mouse	465 mg/kg	-
	LD50 Oral	Rabbit	875 mg/kg	-
	LD50 Oral	Rat	400 mg/kg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 Ml	-
	Eyes - Severe irritant	Rabbit	-	1.62 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 Ul	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Urea, polymer with formaldehyde, isobutylated	Eyes - Severe irritant	Rabbit	-	24 hours 100 Ul	-
pentan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
Propan-2-ol	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-
maleic anhydride	Eyes - Severe irritant	Rabbit	-	1 %	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
pentan-2-ol	Category 3	-	Respiratory tract irritation
Propan-2-ol	Category 3	-	Narcotic effects

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
maleic anhydride	Category 1	inhalation	respiratory system

Aspiration hazard

Name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

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.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Section 11. Toxicological information

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)
Product as-supplied	5684.2	21097.6	N/A	129.2	N/A
butan-1-ol	500	N/A	N/A	N/A	N/A
xylene	N/A	1100	N/A	11	N/A
pentan-2-ol	N/A	N/A	N/A	11	N/A
ethylbenzene	N/A	N/A	N/A	11	N/A
maleic anhydride	500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
butan-1-ol	Acute EC50 1983 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 2300000 µg/l Marine water	Fish - Alburnus alburnus	96 hours
	Acute LC50 1910000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 1940000 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 1730000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
xylene	Acute EC50 90 mg/l Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute LC50 8.5 ppm Marine water	Crustaceans - Palaemonetes pugio - Adult	48 hours
	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 16940 µg/l Fresh water	Fish - Carassius auratus	96 hours
	Acute LC50 15700 µg/l Fresh water	Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 20870 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 19000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
trizinc bis(orthophosphate)	Acute LC50 90 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
2-methylpropan-1-ol	Acute EC50 1200000 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata - Larvae	48 hours
	Acute EC50 1439 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 1300000 µg/l Fresh water	Daphnia - Daphnia magna - Larvae	48 hours
	Acute EC50 1100000 µg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute EC50 1460 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 600 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 1190000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1030000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1460000 µg/l Fresh water	Fish - Ictalurus punctatus	96 hours
	Acute LC50 1330000 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 1430000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 1510000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 20 mg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 4000 µg/l Fresh water	Daphnia - Daphnia magna	21 days

Section 12. Ecological information

Propan-2-ol	Acute EC50 10100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 7550 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 9550 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 10400000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 6550000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 9640000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 5400 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4900 µg/l Marine water	Algae - Skeletonema costatum	72 hours
	Acute EC50 7700 µg/l Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 13.3 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.97 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 8.78 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute LC50 13.3 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute LC50 40000 µg/l Marine water	Crustaceans - Cancer magister - Zoea	48 hours
	Acute LC50 18.4 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 13.9 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 75000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5100 µg/l Marine water	Fish - Menidia menidia	96 hours
	Acute LC50 4.3 ul/L Marine water	Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 9090 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 9100 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Phosphoric acid	Acute EC50 105 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 138 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours
	Acute LC50 60 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 87 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
maleic anhydride	Acute LC50 230 ppm Fresh water	Fish - Gambusia affinis - Adult	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
butan-1-ol	1	-	low
xylene	3.12	8.1 to 25.9	low
trizinc bis(orthophosphate)	-	60960	high
2-methylpropan-1-ol	1	-	low
pentan-2-ol	1.19	-	low
Propan-2-ol	0.05	-	low
ethylbenzene	3.6	-	low
maleic anhydride	-2.78	-	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. 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. 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG
UN number	UN1263	UN1263
UN proper shipping name	PAINT	PAINT
Transport hazard class(es)	3 	3  
Packing group	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant(s): trizinc bis(orthophosphate)

Additional information

UN : **Viscous liquid exception** This class 3 material can be shipped as Packing Group III in packagings up to 450 L.

IMDG : **Emergency schedules** F-E, _S-E_

Section 14. Transport information

The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Viscous liquid exception This class 3 material can be shipped as Packing Group III in packagings up to 450 L.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Inventory list

Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: **Russian Federation inventory**: Not determined.
Japan	: **Japan inventory (CSCL)**: Not determined. **Japan inventory (ISHL)**: Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.

Section 16. Other information

History

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
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)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Procedure used to derive the classification

Section 16. Other information

Classification	Justification
FLAMMABLE LIQUIDS - Category 2	On basis of test data
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
AQUATIC HAZARD (ACUTE) - Category 2	Calculation method
AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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