



Manufacturers of UTHANE Polyurethane Coatings
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MATERIAL SAFETY DATA SHEET
PE230 / PE330 POLYESTER ACCELERATOR
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Hazardous According to Criteria of Worksafe Australia

COMPANY DETAILS

Company : BC Coatings
Address : 2 Hume Road, Smithfield, N.S.W., 2164
Telephone Number : +612 9729-2000
Emergency Telephone No. : +612 9634-5560

IDENTIFICATION

Product Name : PE230 POLYESTER ACCELERATOR
Other Names : POLYESTER ACTIVATOR
Product Code : PE230PEA
U.N Number : 1263 **Packaging Group** : III
Dangerous Goods Class : 3 **Subsidiary Risk** : None allocated
Hazchem Code : 3YE **Poisons Schedule** : S5
Use : High class furniture finishes.

For Industrial Use Only In Areas Complying With Relevant Regulations.

PHYSICAL DESCRIPTION / PROPERTIES

Appearance : Blue violet liquid with a characteristic odor.
Boiling Point (°C) : 147 - 199 °C (White Spirit)
Vapour Pressure : 0.7 kPa @ 20°C (White Spirit)
Relative Vapor Density : 4.6 (Air = 1) (White Spirit)
Specific Gravity : 0.900 ± 0.005 (Water = 1)
Flash Point : 36.0 °C (Tag Closed Cup) (White Spirit)
Flammability Limits (% volume) : 0.9 LEL / 7.0 UEL (White Spirit)
Evaporation Rate : 0.16 (Butyl Acetate =1) (White Spirit)
Solubility in Water (% Weight) : Immiscible
% Volatiles (by volume) : 68.0 ± 0.005
Autoignition Temperature (°C) : 254.0

Other Properties : Can readily form flammable mixture.
Avoid contamination with organic peroxides which react with violent evolution of oxygen.
Contact with peroxide containing unsaturated oil generates heat.

INGREDIENTS

Chemical Entity	CAS No.	Proportion (% w/w)
Cobalt salt of 2-ethylhexanoic acid	136-52-7	30 - 60
White Spirit	64742-88-7	> 60

All components are registered in accordance with Australian Inventory of Chemical Substances.

HEALTH HAZARD INFORMATION**HEALTH EFFECTS - ACUTE EXPOSURE**

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label.

Principal routes of exposure are usually by inhalation of vapour and skin contact/absorption.

Acute (short term) health effects may occur immediately or shortly after exposure to this product.

High vapor concentrations are irritating to the eyes and the respiratory tract, may cause vomiting, coughing, pulmonary irritation, headaches and dizziness, are anaesthetic and may have other central nervous system effects. Narcotic effects occur at levels below the exposure standard.

Evidence from animal tests indicate that chronic solvent inhalation exposures may result in nervous system impairment, kidney disorders and liver and blood changes [PATTYS]

Prolonged, repeated skin contact with low viscosity materials may de-fat the skin resulting in possible irritation and dermatitis.

Swallowed : Moderately toxic.

Considered an unlikely route of entry in commercial/industrial environments.

The liquid is irritating to mouth, throat and the gastrointestinal tract and may be toxic if swallowed in quantity.

Ingestion can result in nausea, cramps, abdominal pain, vomiting, diarrhoea and central nervous system depression.

Tends to break into a foam if the patient vomits.

Small amounts of liquid aspirated into respiratory system during ingestion or from vomiting may cause, broncho-pneumonia, pulmonary oedema or potentially lethal chemical pneumonitis.

If the victim is uncoordinated there is a greater likelihood of vomit entering the lungs and causing subsequent complications.

Eye

The liquid is highly irritating to the eyes and is capable of causing temporary discomfort with mild redness of the conjunctiva (similar to wind burn), temporary impairment of vision and other transient eye damage.

The vapour is mildly irritating to the eyes if exposure is prolonged.

Skin

The liquid is mildly irritating to the skin.

May cause de-fatting and drying of the skin which may lead to dermatitis from repeated exposures over long periods.

Capable of being absorbed by the skin and may cause central nervous system depression.

Toxic effects may result from skin absorption. Capable of causing skin sensitisation and allergic skin reactions.

Open cuts, abraded or irritated skin should not be exposed to this material.

The material may accentuate any pre-existing skin condition.

Inhaled

Vapor/mist is irritating to mucous membranes, upper respiratory tract and lungs.

High vapour concentrations may cause headaches and dizziness and other central nervous system problems with effects such as loss of co-ordination, impaired judgment and, if exposure is prolonged, unconsciousness.

Inhalation hazard is increased at higher temperatures.

Repeated exposure may cause sensitisation and/or allergic reactions.

Aspiration of liquid into lungs can cause serious (even fatal) pneumonitis.

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

HEALTH HAZARD INFORMATION - continued**HEALTH EFFECTS- CHRONIC EXPOSURE:**

Chronic (long term) health effects can occur at some time after exposure to this product and can last for months or years.

Principal routes of exposure are usually by skin contact/absorption and inhalation of vapour.

Prolonged or repeated skin contact causes de-fatting with drying, cracking, irritation and dermatitis following.

Can be absorbed through the skin with resultant toxic effects.

MIXED EXPOSURES

Because smoking can cause heart disease, as well as lung cancer, emphysema, and other respiratory problems, it may worsen respiratory conditions caused by chemical exposure.

Even if you have smoked for a long time, stopping now will reduce your risk of developing health problems.

Because more than light alcohol consumption can cause liver damage, drinking alcohol can increase the liver damage caused by this product.

FIRST AID

Swallowed : Harmful if swallowed.

Rinse mouth out with plenty of water. Give a glass of water or milk to drink to dilute the chemical.

Do **NOT** give anything by mouth to an unconscious person.

If swallowed, do **NOT** induce vomiting due to the hazard of solvent aspiration into the lungs which may cause mild to severe pulmonary injury and possibly death.

Tends to break into a foam if the patient vomits.

Should vomiting occur, place patient's head downwards, head lower than hips, to prevent vomit entering the lungs.

This is especially important as aspiration of this material into the lungs can cause chemical pneumonia, which can be fatal.

Call a doctor and/or transport to an emergency facility or hospital immediately.

Eye :

First check the victim for contact lenses and remove if present.

Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Immediately and continuously irrigate with copious quantities of fresh, low pressure, running water for at least 15 minutes. Eyelids should be held open.

Ensure irrigation under the eyelids by occasionally lifting upper and lower lids.

Remove any contaminated clothing and gently flush area with water until irritation subsides.

If pain persists or recurs, seek IMMEDIATE medical attention.

Skin :

Immediately soak contaminated clothing, including footwear, with water and then remove.

Gently wash the affected areas thoroughly with water, then mild soap and water.

If exposure has been prolonged or severe or if swelling, redness or irritation occur seek medical advice.

Launder contaminated clothing before re-use.

Thoroughly dry contaminated shoes before re-use. Discard internally contaminated gloves and footwear.

HEALTH HAZARD INFORMATION - continued**FIRST AID (continued)****Inhaled** : If fumes or combustion products are inhaled :

Remove affected person(s) to fresh air, taking care not to become affected yourself.

Remove any contaminated clothing and loosen remaining clothing.

If breathing is normal, allow the patient to assume the most comfortable position and keep warm.

Keep at rest until fully recovered.

If breathing is difficult and patient is cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a face mask.

If breathing has stopped, commence Expired Air Resuscitation (E.A.R.).

In the event of cardiac arrest commence Cardio-Pulmonary Resuscitation (C.P.R.) and seek **IMMEDIATE** medical attention.**First aid facilities** : Shower facilities and eye wash stations should be provided.

Poison Information Centres in each State capital city can provide additional assistance for scheduled poisons.

ADVICE TO DOCTOR

Treat symptomatically.

Principal routes of exposure are skin contact/absorption and inhalation of the vapor/spray mist.

Onset of symptoms may be delayed several hours after exposure.

Primary threat to life from ingestion and/or inhalation, is respiratory failure.

Extreme care must be taken to prevent aspiration.

Skin sensitisation may result from a single acute exposure.

Sensitisation may cause difficulty in breathing similar to asthma.

PRECAUTIONS FOR USE

This Fact Sheet is a summary source of information of all potential and most severe health hazards that may result from exposure.

Duration of exposure, concentration of the substance and other factors will affect your susceptibility to any of the potential effects described below.

Exposure Standards :

No value has been assigned for this specific material by the National Occupational Health & Safety Commission (N.H.M.R.C.) (Worksafe Australia [1991]), however Threshold Limit Value (TLV) as recommended for some of the components is: -

WHITE SPIRIT (as CAS RN 64742-88-7)

ES TWA : 790 ppm (Under review)

TLV TWA : 100 ppm, 525 mg/m³

The above exposure limits are for air levels only. When skin contact also occurs, you may be overexposed, even though air levels are less than the limits listed above.

Exposure at or below the recommended TLV-TWA is thought to minimize the potential for irritation of the eyes and respiratory tract as well as narcotic effects.

TLV is the time weighted average concentration of the workplace atmosphere for a normal 8 hour work day and a 40 hour week, to which nearly all workers may be repeatedly exposed day after day without adverse effect.

These TLV,s are issued as guidelines only and should not be interpreted as the fine line between safe and dangerous conditions.

All atmospheric contamination should be kept to as low a level as is practically possible.

PRECAUTIONS FOR USE - continued**ENGINEERING CONTROLS:**

Ensure sufficient ventilation to maintain concentration below exposure standard.
Use with local exhaust ventilation or while wearing organic vapour respirator.
The effectiveness of an air purifying respirator is limited.
Use it only for a single, short term exposure.

Note

Vapour is heavier than air and may collect in hollows, pits, storage tanks or sumps.
Do **NOT** enter confined spaces where vapour may have collected without using an approved, positive pressure, self-contained breathing apparatus and an observer is present for assistance.

LOCAL EXHAUST : Face velocity > 20 m/min.

PERSONAL PROTECTION:

Observe good personal hygiene.
Keep away from foodstuffs, drinks and tobacco.
Wash contaminated clothing and other protective equipment before storing or re-using.
Keep working clothes separate. Take off immediately all contaminated clothing.
ALWAYS wash hands carefully before breaks, eating, drinking, smoking, using the toilet and at end of work.
Do not eat, smoke, or drink where this product is handled, processed, or stored, since the chemical can be swallowed.

Skin contact should be avoided by wearing chemically resistant work clothing, boots and gloves.

Eyes should be protected by chemical splash goggles or safety glasses fitted with side shields.
If vapour causes eye irritation or if an inhalation risk exists a full-face, organic vapour respirator should be used.

NOTE

Make sure the correct cartridges are used for the potential air contamination.
The effectiveness of an air purifying respirator is limited.
Use it only for a single, short term exposure.
For emergency and other conditions where the exposure guide line may be greatly exceeded, use an approved, positive pressure, self-contained breathing apparatus and an observer is present for assistance.

For further information consult your Occupational Health and Safety Adviser.

For detailed advice on Personal Protective Equipment, refer to the following Australian Standards :-
HB 9 (Handbook 9) Manual of industrial personal protection.
AS 1377 Eye protectors for industrial applications.
AS 1715 Selection, use and maintenance of respiratory protective devices.
AS 1716 Respiratory protective devices.

SAFE HANDLING INFORMATION**FLAMMABILITY :**

Highly flammable liquid.

Can readily form flammable mixture with air.

May form explosive mixtures with air.

Avoid direct sources of heat, naked lights, sparks, all ignition sources and oxidising materials.

Prevent build up of flammable vapors.

Vapour may travel a considerable distance to source of ignition and flash back.

Explosion proof equipment necessary in areas where this product is being used.

Earth and bond all process equipment, including tanks, hoses and drums to avoid static charge build up.

Nearby equipment should be earthed.

Ensure ventilation is adequate to prevent build up of explosive atmosphere.

STORAGE AND TRANSPORT:

Classified as a Dangerous Good (Class 3) for transport purposes.

SHIPPING NAME	: Paint Related Material	UN No	: 1263
PACKAGING GROUP	: II	AS 1940 Class	: PG II
CLASS	: 3.1 (Highly flammable Liquid)	POISONS SCHEDULE	: S5
SUBSIDIARY RISK	: NOT ASSIGNED	HAZCHEM CODE	: 3[Y]E
IMO HAZARD CLASS	: INFLAMMABLE LIQUID/3.3	EPG	: 3C1
STORAGE TEMPERATURE	(°C) : Ambient		
TRANSPORT TEMPERATURE	(°C) : Ambient		
LOADING / UNLOADING TEMPERATURE	(°C) : Ambient		
STORAGE / TRANSPORTATION PRESSURE (kPa)	: Atmospheric		
ELECTROSTATIC ACCUMULATION HAZARD ?	: Yes, use proper grounding procedure.		
USUAL SHIPPING CONTAINERS	: Drums, pails.		
MATERIALS AND COATINGS SUITABLE	: Carbon Steel / Stainless Steel.		
MATERIALS AND COATINGS UNSUITABLE	: Natural Rubber / Butyl Rubber / E P D M / Polystyrene / Polyethylene / Polypropylene / Polyvinyl chloride / Polyvinyl alcohol / Polyacrylonitrile		

Class 3 flammable liquids shall NOT be loaded in the same vehicle with :-

- Class 1 Explosives
- Class 2.1 Flammable gases (when both in bulk)
- Class 2.3 Poisonous gases
- Class 4.2 Spontaneously combustible substances
- Class 5.1 Oxidizing agents
- Class 5.2 Organic peroxides
- Class 7 Radioactive substances
- Halogens (chlorinated compounds & etc.)
- Foodstuffs and foodstuff empties.

Refer to Australian Code for the Transport of Dangerous Goods By Road and Rail (6th Edition) for transport regulations and state Dangerous Goods regulations for storage requirements.

This material is a Scheduled Poison (S5) and must be stored, maintained and used in accordance with the relevant regulations.

SAFE HANDLING INFORMATION - continued

Materials are stable on storage, but should be stored in a cool, well ventilated area away from sources of ignition, oxidizing agents and odour sensitive materials.

Keep containers tightly closed when not in use and check regularly for leaks.

Use non-sparking tools and equipment.

Refer to AS 1940 - Storage and handling of flammable and combustible liquids and AS 2865 (Safe working in a confined space) for more specific information on these subjects.

SPILLS AND DISPOSAL:

Shut off all possible sources if ignition.

Instruct others to keep at a safe distance.

Advise authorities product has entered or may enter sewers, watercourses or extensive land areas.

SMALL SPILLS

May be absorbed onto any absorbent material such as sand, soil or vermiculite.

LARGE SPILLS

Wear breathing apparatus, gloves and full protective clothing.

Stop liquid at the source.

Dike the area to prevent spreading and to prevent it entering sewers, drains or natural waterways.

Pump the liquid to a salvage tank.

Absorb remaining material with suitable absorbent(sand, soil etc.).

Shovel into sealed containers for later disposal.

Ventilate area well to evaporate remaining liquid and to dispel vapours.

DISPOSAL

Refer to State Waste Management Authority.

Normally suitable for incineration by an approved agent.

FIRE AND EXPLOSION HAZARD:

Flammable liquid.

When burning may form toxic materials such as carbon monoxide, carbon dioxide, various hydrocarbons, fumes and smoke.

Heating can cause rupturing of containers with explosive force.

Do not store or mix with strong oxidants, halogens or molten sulphur.

Avoid contamination with organic peroxides which react with violent evolution of oxygen.

Contact with peroxide containing unsaturated oil generates heat.

If safe to do so, remove containers from the path of the fire and keep cool with water spray.

Fire-fighters should wear self-contained breathing apparatus with a full face piece and operated in positive pressure mode.

FIREFIGHTING :

Use foam, carbon dioxide or dry chemical.

Water may be ineffective but should be used to cool fire exposed structures.

This material may produce a floating fire hazard.

OTHER INFORMATION**TOXICITY**

Evidence from animal tests is available to indicate that repeated or prolonged exposure to hydrocarbon solvents could result in liver, kidney and central nervous disorders as well as anaemia and leucopenia (lowered white cell count).

Prolonged, repeated skin contact with low viscosity materials may de-fat the skin resulting in possible irritation and dermatitis.

Aromatic hydrocarbons irritate the skin and mucous membranes and are narcotic if inhaled in high concentrations.

No LD₅₀ data available for this specific product. However for some of the components :

White Spirits

LD ₅₀ Oral	(rat)	: > 2,000 mg/Kg	Practically non-toxic.
LD ₅₀ Dermal	(rabbit)	: > 2,000 mg/Kg	Practically non-toxic.
LC ₅₀ (Inhalation)	(rat)	: Practically non- toxic.	
Skin Irritation	(rabbit)	: Practically non-irritating	
Eye Irritation	(rabbit)	: Practically non-irritating	

OTHER : Do **NOT** induce vomiting if swallowed

REACTIVITY/COMPATIBILITY:

Hazardous polymerization : Will not occur

Stability : Stable under normal conditions

Conditions to Avoid : Heat, sparks, flame and build up of static electricity.

Incompatibility (materials to avoid for purpose of transport, handling & storage only)

: Avoid contact with strong alkalis, mineral acids, halogens, strong oxidizers halogens and molten sulphur

Avoid contamination with organic peroxides which react with violent evolution of oxygen.

Contact with peroxide containing unsaturated oil generates heat.

Hazardous decomposition products : No hazardous decomposition products when stored and handled correctly.

Carbon monoxide, carbon dioxide, fumes hydrogen bromide and smoke in the case of incomplete combustion.

Thermal decomposition produces acrid smoke and/or irritating toxic fumes.

SPECIAL PROPERTIES / EFFECTS

Over-exposure, especially during spraying operations without the necessary precautions entails the risk of concentration-dependent irritating effects on eyes, nose, throat, and respiratory tract.

Delayed appearance of the complaints and development of hyper-sensitivity (difficult breathing, coughing, asthma) are possible.

Hypersensitive persons may suffer from these effects even at low concentrations.



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OTHER INFORMATION - continued

PRINCIPAL REFERENCES

Supplier's Material Safety Data Sheets

In "Registry of Toxic Effects of Chemical Substances 1995" (Ed. D. Sweet),
(US Dept. of Health & Human Services: Cincinnati 1995)

CONTACT POINT

BC COATINGS

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TECHNICAL MANAGER

PRODUCTION MANAGER

MANAGING DIRECTOR

SALES

MANAGER

The information contained herein is based on data available to BC Coatings from both our own technical sources and from recognised published references and is believed to be both accurate and reliable. Since we cannot anticipate or control the many different conditions under which this information and our products may be used, each user should review these recommendations in the specific context of the intended application and confirm whether they are applicable.