

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION & COMPANY

Product Name MODIFIED DRABKIN'S REAGENT

Product Code 61020X

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
POTASSIUM CYANIDE	205-792-3	151-50-8	1-5%	T+;R26/27/28 R32 N;R51/53
POTASSIUM HEXACYANOFERRATE	237-323-3	13746-66-2	10-20%	Xn; R32
SODIUM HYDROGEN CARBONATE	205-633-8	144-55-8	50-100%	

The Full Text for all R-Phrases are Displayed in Section 16

3. HAZARDS IDENTIFICATION

CLASSIFICATION T; R23/24/25 R32
 R52/53

- Toxic by inhalation, in contact with skin and if swallowed
- Contact with acids liberates very toxic gas
- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

4. FIRST-AID MEASURES**GENERAL INFORMATION**

Personnel administering first aid should wear suitable protective clothing and be made aware of the hazards involved.

NOTES TO THE PHYSICIAN

SPECIFIC NOTES FOR CYANIDE TREATMENT: If the casualty is breathing, break 2 amyl nitrite tablets under the casualty's nose so the vapour is inhaled. Kelo-cyanor should only be used by trained personnel. Kelo-cyanor is extremely dangerous when administered to casualties NOT suffering from cyanide poisoning.

INHALATION

Get medical attention immediately! Move the exposed person to fresh air at once. If breathing is difficult administer oxygen. If not breathing give artificial respiration. See 'Notes to Physician' above.

INGESTION

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth out and get medical attention immediately! See 'Notes to Physician' above.

SKIN CONTACT

Rinse the skin immediately with lots of water. Remove contaminated clothing and launder before reuse. Get medical attention immediately.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

5. FIRE-FIGHTING MEASURES**EXTINGUISHING MEDIA**

Appropriate foam. Do not use carbon dioxide extinguisher.

SPECIFIC HAZARDS

Toxic fumes may be emitted on heating or fire - hydrogen cyanide (HCN).

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground. Inform local authorities of large spillages where there is contamination of water courses.

SPILL CLEAN UP METHODS

Stop leak if possible without risk. Neutralise with calcium hypochlorite. Build dikes to contain flow. Keep out of water supply and sewers. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not let washing down water contaminate ponds or waterways.

7. HANDLING & STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Avoid handling which leads to dust formation. Do not use in confined spaces without adequate ventilation and/or respirator. Do not handle broken packages without protective equipment. Eye wash facilities and emergency shower must be available when handling this product. Antidote must be available in place of work.

STORAGE PRECAUTIONS

Store in tightly closed original container in a cool, dry well-ventilated place. Open container only in a fume cupboard. Avoid contact with acids.

STORAGE CLASS

Toxic storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Name	Std	8h TWA		STEL	
POTASSIUM CYANIDE	WEL	4.7 ppm	5 mg/m ³		

WEL – Workplace Exposure Limit; 8h TWA – 8-hour Time-Weighted Average; STEL – Short-Term EL.

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Work in fume cupboard.

RESPIRATORY EQUIPMENT

Wear self-contained breathing apparatus. Consult respirator manufacturer for specific advice.

HAND PROTECTION

Use protective gloves made of: Rubber or plastic. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved safety goggles.

OTHER PROTECTION

Provide eyewash station. Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE Powder.

COLOUR Pale yellow / Red / White.

SOLUBILITY Soluble in water.

10. STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Contact with acids liberates a very toxic gas (hydrogen cyanide).

HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Very toxic gases/vapours/fumes of: Hydrogen cyanide (HCN).

11. TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 10 mg/kg (oral rat)

INHALATION Toxic by inhalation.

INGESTION Toxic if swallowed.

SKIN CONTACT Toxic in contact with skin.

ROUTE OF ENTRY Skin and/or eye contact. Ingestion. Inhalation.

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

The material and its container must be disposed of as hazardous waste. Dispose of waste and residues in accordance with local authority requirements.

14. TRANSPORT INFORMATION



RID / ADR

UN#	1588
Class	6.1
PG	III
Proper shipping name:	Cyanides, inorganic, solid n.o.s

IATA

UN#	1588
Class	6.1
PG	III
Proper shipping name:	Cyanides, inorganic, solid n.o.s

IMDG

UN#	1588
Class	6.1
PG	III
Proper shipping name:	Cyanides, inorganic, solid n.o.s
Marine Pollutant:	Yes
Severe Pollutant	No

15. REGULATORY INFORMATION

LABELLING



Toxic

CONTAINS POTASSIUM CYANIDE

RISK PHRASES

- R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R32 Contact with acids liberates very toxic gas.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES

- S7 Keep container tightly closed
- S28 After contact with skin, wash immediately with plenty of ... (to be specified by the manufacturer)
- S29 Do not empty into drains
- S45 In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)
- S60 This material and its container must be disposed of as hazardous waste
- S61 Avoid release to the environment. Refer to special instructions/safety data sheet

STATUTORY INSTRUMENTS

Control of Substances Hazardous to Health. Chemicals (Hazard Information and Packaging) Regulations.

GUIDANCE NOTES

CHIP for everyone HSG(108). Workplace Exposure Limits EH40.

16. OTHER INFORMATION**GENERAL INFORMATION**

This safety data sheet covers all codes for this product.

REVISION COMMENTS

Reformatting.

Reassessment of Workplace Exposure Limits.

REVISION DATE

09 - 2008

REV. NO./REPL. SDS GENERATED

2 / 09-2006

RISK PHRASES IN FULL

R23/24/25	Toxic by inhalation, in contact with skin and if swallowed
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed
R32	Contact with acids liberates very toxic gas
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment