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	Document Type:	Safety Data Sheet Conforms to ISO 11014:2009
	Title:	INNOVEX™ RG

1. Identification of the product and Company Identification

Product Name	INNOVEX™ RG	Manufactured/ supplied by
Product use	Bulk base emulsion	bme A division of Omnia Group (Pty) Ltd P.O. Box 70040 Bryanston South Africa 2021 Tel: 27 11 7098791 Fax: 27 11 4633023
Synonyms	INNOVEX™, Reactive ground emulsion	
Chemical Formula	Not applicable	
Emergency telephone number	(+27) 11 706 3398	

2. Composition/information on ingredients

Substance/preparation:

Chemical name*	CAS No	%	EC Number	Classification
Europe Ammonium Nitrate	6484-52-2	< 60	229-347-8	O: R8 R5 Xn: R22 Xi: R36/38
Calcium Nitrate	10124-37-5	< 30	233-332-1	O: R8 Xn: R22 Xi: R36/38 R: 22/38
Fuel Oil Composition		< 10		R: 10
Urea	57-13-6	< 10	200-315-5	Xi: R36/38 S15
*See Section 16 for the full text of the R Phrases declared above				

3. Hazards identification

Classification	O: R5; R8; R10 Xn: R22 Xi: R36/38 R: 44
Additional hazards:	Will not readily burn on its own, but if subjected to extreme external heat for a period of time, water can be driven off resulting in explosion risk.
Effects and symptoms:	May cause irritation to sensitive skin. Harmful if swallowed. May cause irritation in case of eye contact.
Aggravating conditions:	Not applicable

See toxicological information (section 11)

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4. First aid measures

Inhalation	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention.
Ingestion	:	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.
Skin contact	:	In case of skin contact. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye contact	:	Check for and remove any contact lenses. In case of contact immediately flush eyes with plenty of water for at least 20 minutes. Cold water may be used. Get medical attention.
Note to physician	:	No specific treatment, treat symptomatically.
Protection of first-aiders	:	No additional remarks.

5. Fire-fighting measures

Extinguishing media	:	
Suitable	:	Do not attempt to fight INNOVEX™ RG fire
Not suitable	:	No additional remarks.
Unusual fire/explosion hazards	:	If a transport vehicle or surrounding combustible material burns, extinguish.
Special fire fighting procedures	:	IF FIRE IS OUT OF CONTROL or has spread to the INNOVEX™ RG, this could result in detonation, DO NOT FIGHT FIRE. Withdraw from the fire and let it burn itself out. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. First move people out of line-of-sight of the scene and away from windows.
Protection of fire fighters	:	Wear overalls, gloves, boots and eye protection as well as self contained breathing apparatus.

6. Accidental release measures

Personal precautions	:	Overalls buttoned to the neck and wrist. Rubber boots. Gloves. Eye protection.
Environmental precautions	:	For small spills, make use of the oil spill kit to remove the spilled material. For large spills, block source of spill and contain spill. Prevent entry into sewers, basements or confined areas. Use soil only to dyke if needed to stop the product from flowing. <u>Do not use</u> soil or dry earth to cover the spill. Use saw dust or an absorbent as per regulation to absorb the spill. Use appropriate tools to collect into drums or suitable containers. Dispose waste using a professional registered waste disposal company.

Note: See section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

Handling	:	Keep away from sources of ignition. Keep away from incompatibles, such as combustible material, organic materials, alkalis and acids.
Storage	:	Store in steel tanks or containers. DO NOT store adjacent to any potentially extreme source of heat or accumulation of combustible material. No open flames or smoking allowed in the vicinity.
Packaging materials	:	Store in steel tanks.
Recommended use:	:	Store in separate containers/tanks.
Not suitable	:	No additional remarks.

8. Exposure controls/personal protection

Engineering measures	:	Provide exhaust ventilation or other engineering controls to keep in the airborne concentrations of vapours below their respective occupational exposure limits.
Hygiene measures	:	Wash hands after handling compounds and before eating, smoking, using ablution facilities and at the end of the day.

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Occupational exposure limits:

Ingredient name	Occupational exposure limits
No additional information	No additional information
Recommended monitoring procedures	: No additional information
Personal protective equipment	
Respiratory system	: A respirator is not required under normal and intended conditions of product use.
Skin and body	: Overalls buttoned to the neck and wrist.
Hands	: PVC gloves or similar suitable gloves.
Eyes	: Eye protection.

9. Physical and chemical properties

Physical state	: Viscous black emulsion
Colour	: Black
Odour	: Fuel like
Odour threshold	: Not available
Boiling point	: No data available
Melting point	: Not available
Flash point	: Not available
Flammability	: Flammable
Density	: 1.45 – 1.50 g/ml
Vapour Density	: Not available
Vapour pressure	: Not available
Evaporation rate	: Not available
Solubility - Water	: Insoluble
Solubility – Solvent	: Soluble in most hydrocarbons
Solubility - Coefficient	: Not available
pH	: Acidic
Fire hazards in presence of various substances	: Contact with combustible or organic material may cause fire
Auto-ignition temperature	: Not available
Explosive properties	: Non-explosive (Risk of explosion if heated under confinement)
Viscosity	: 30 000 – 50 000 cP
Neurotoxicity	: Not available

10. Stability and reactivity

Stability	: Product is stable. As a standalone product, Innovex™ RG may be used in ground temperatures up to 80°C. In the absence of reactive ground, the maximum time exposure (safe loading window) is 8 hours. In the presence of reactive ground, the maximum exposure time needs to be determined by ground vs explosive isothermal testing
Conditions to avoid	: The material becomes explosive after addition of the separate sensitizing material just before pouring down the blast hole. Avoid oxidising agents, combustible material, organic material, acids, alkali's, reducing agents and metals.
Hazardous decomposition product	: Nitrous oxides and CO may be generated during detonation. Under normal storage conditions no hazardous decomposition product occurs.
Hazardous polymerisation	: Will not occur.

11. Toxicological information

Eyes	: Hazardous in case of eye contact (irritant)
Skin	: Hazardous in case of skin contact (irritant). Skin inflammation is characterised by itching, scaling, reddening or occasionally blistering
Inhalation	: None identified
Ingestion	: May cause burns to mouth, throat and stomach

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12. Ecological information

Mobility : Not available
Soil/water partition coefficient : Not available
Persistence/degradability : Not known
Bio accumulative potential : Not known
German wgk : Not known
Remarks : Not known

Aquatic toxicity:

Fish : Extreme in high concentrations of nitrates affect fish and oil reduces oxygen in water.
Daphnia : As above
Algae : Not available

13. Disposal considerations

Methods of disposal : Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste classification : Hazardous waste

14. Transport information

Regulatory information	UN Number	Name and description	Class	UN Packaging Group	Additional information
ADR/RID Class	3375	OXIDISING Material (Liquid) N.O	5.1	III	Limited quantity
ADN Class	3375	OXIDISING Material (Liquid) N.O	5.1	III	CEFIC Tremcard
IMDG Class	3375	OXIDISING Material (Liquid) N.O	5.1	III	Emergency schedules
IATA-DGR Class	3375	OXIDISING Material (Liquid) N.O	5.1	III	AIR: Forbidden RAIL: Applicable Hazchem and specific requirements of the relevant transport authority. Both Rail and Road must comply with: Hazardous Substance Act No 15 of 1973 and the OHSAct specifically the Regulations for Hazardous Chemical Substances SEA: As per UN recommendation and the IMDG Code.

15. Regulatory Information

EU Regulation
Hazard symbols :
Indicator of Danger:
Risk phrases : R5 – Heating may cause explosion
 : R8 - Contact with combustible material may cause fire
 : R10 - Flammable
 : R 22 – Harmful if swallowed
 : R36 – Irritating to eyes
 : R38 - Irritating to skin
 : R44 – Risk of explosion if heated under confinement
Safety phrases : S15 – Keep away from heat
 : S17 – Keep away from combustibles
 : S24/25 – Avoid contact with skin and eyes
Product use : -

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16. Other information

Full text of R-Phrases with No:	R3	Extreme risk of explosion by shock, friction, fire or other sources of ignition
	R5	Heating may cause an explosion
	R8	Contact with combustible material may cause fire
	R9	Explosive when mixed with combustible material
	R10	Flammable
	R61	May cause harm to the unborn child
	R62	Possible risk of impaired fertility
	R20/22	Harmful by inhalation and if swallowed
	R22	Harmful if swallowed
	R36/38	Irritating to eyes and skin
	R33	Danger of cumulative effects
	R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Text of classifications:
Appearing in Section 2**

E - Explosives
O - Oxidising
F - Highly flammable
Repr. Cat. 1 – Toxic for reproduction Category 1
Repr. Cat. 3 – Toxic for reproduction Category 3
Xn – Harmful
Xi – Irritant
N – Dangerous for the environment

History

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Recommended by	:	C Oussoren – LAB Supervisor
Authorised by	:	DH Voogt – General Manager – Production and Logistics

Remarks:

This SDS summarises, at the date of issue, our best knowledge of health and safety hazard information of the product, and in particular how to safely handle the product in the workplace. As **BME** cannot control the use and handling of the product, each user must review the SDS in the context of how the user intends to handle and use the product in the workplace.