

PRODUCT SAFETY DATA SHEET METRON ACTUATOR

1. IDENTIFICATION OF THE SUSTANCE / PREPARATION AND THE COMPANY

PRODUCT: Metron Actuator (Also known as Protractors, Retractors and Guillotines)

'Metron Actuator' is a registered Trade Mark of Nobel's Explosives

Company Limited.

USE: Provide mechanical movement from a small electrical impulse.

MANUFACTURER Chemring Energetics UK Ltd

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2. COMPOSITION / INFORMATION ON INGREDIENTS

Articles contain up to 100mg of initiating and gas generating explosive materials.

** 3. HAZARDS IDENTIFICATION

On electrical initiation, these devices operate very quickly. For protractors, a small brass septum is ejected from the front of the device, which presents a hazard to unprotected eyes.

Physical damage may result from contact with the moving piston.

It is possible for the piston to be ejected at high velocity. Users should test their application to ensure that there is no possibility of this situation arising.

It is possible for the glass/metal seal to be ejected at high velocity in the event that the piston is restrained beyond normal operational loads. Users must ensure that the piston is not prevented from moving.

See Appendix 1 for additional information on use, "Installation Guidelines for Metron Actuators"



4. FIRST-AID MEASURES

Inhalation of materials: N/A

Skin Contact: N/A

Eye Contact: N/A

Ingestions: N/A

5. FIRE-FIGHTING MEASURES

In the event of fire, a minor projection hazard exists when the heat causes the integrity of the construction to break down. Inform the Emergency Services of the nature of the product.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE'S)

These devices can be handled safely.

7. HANDLING & STORAGE

Store in dry, temperate storage areas. The life of these products does not exceed 10 years from date of manufacture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits: N/A

Employee Protection Recommendations

Respiratory Protection: N/A Hand Protection: N/A

Eye Protection: Safety Glasses

Skin Protection: N/A

Check with PPE Manufacturer

9. PHYSICAL AND CHEMICAL PROPERTIES

Small brass cylinders with two wires.



10. STABILITY AND REACTIVITY

Stability: Stable below 100°c

Conditions to Avoid: Fire and Impact

Materials to Avoid: N/A

Hazardous Decomposition

Products: N/A

11. TOXICOLOGICAL INFORMATION

Not applicable. These devices are sealed before, during and after functioning.

12. ECOLOGICAL INFORMATION

These devices present no ecological hazard.

13. DISPOSAL CONSIDERATIONS

<u>Product Disposal:</u> Reference should be made to "Disposal of explosives waste", issued by

the UK Health & Safety Executive, Guidance Note CS23, 1998.

No attempt should be made to section or dismantle these devices.

Once functioned, by following the appropriate waste disposal regulations, these devices can be disposed of as scrap metal.

Unfired devices should be functioned individually by application of the

correct firing current.

Large numbers of devices should be disposed of by burning in a

controlled manner.

Container Disposal: Ensure packaging is free of explosive material prior to disposal.

14. TRANSPORTATION

'Metron Actuators', DR2000, DR3000 and DR5000 series, are excluded from UN Class 1 and designated as not presenting a significant hazard from explosion.

15. REGULATORY INFORMATION

This product is exempt from the labeling requirements of the Chemical (Hazard Information and Packaging for Supply) Regulations 2002.



16. OTHER INFORMATION

This data sheet was last revised in January 2007. Revisions are marked with ** in the left margin

This data sheet was prepared in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations (Chip 3).

The technical information provided in this safety data sheet should only be used for the purposes of assessing hazards with respect to safety or the environment. It should not be used as a technical specification or for engineering calculations.

Information in this document is believed to be accurate and is given in good faith but it is for the customer to satisfy itself of the suitability for its own particular purpose. The information provided is intended to describe the product for the purposes of health, safety and environmental requirements only. It is not intended, and should not be construed as a warranty. Nobel Energetics should be consulted for further information.

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Appendix 1

INSTALLATION GUIDELINES FOR METRON ACTUATORS

Metron Actuators are used in a wide range of applications and, as such, installation procedures are largely governed by customers systems.

The following points should be noted.

- 1. The actuator must be fitted in strict compliance with valve / system manufacturers' instructions.
- 2. The actuator is available with optional piston stroke lengths and electrical sensitivity. The user must be satisfied that the correct part number, as recommended by the valve / system manufacturer, is fitted.
- 3. Where the actuator is fitted with a hexagonal end cap, extreme care must be taken to ensure that no movement occurs at the end cap relative to the body. This will render the actuator inoperable. Use of a wrench on the hexagonal end cap should be avoided.
- 4. Care must be taken to ensure that the actuator cable / leadwires are not twisted. N.B. Some actuators have twisted cables as standard. Twisting refers to twisting of the cable relative to the actuator during installation.
- 5. Electrical test meters must be limited to 0.01 amps short circuit current to prevent inadvertent operation of the actuator. This monitoring current must not be exceeded.
- 6. The actuator should be replaced at intervals as instructed by the valve / system manufacturer, depending on service conditions, and no later than 10 years from date of manufacture. More arduous environments may require more frequent replacement.