



Rethink Tomorrow

13100 W. Lisbon Road Suite 600, Brookfield, WI. 53005 USA

Material Safety Data Sheet

1. Product identification

Product use: LCO Plant signal technology
MSDS number: NZBWI-605
Effective date: August 1, 2011

Torque™

2. Composition:

Component

Lipo-chitooligosaccharide (LCO)
Other ingredients (aqueous carrier)

CAS number

Not available
Not available

% (w/w)

2×10^{-7}
>99

3. Hazard identification:

NFPA: Health – 1, Flammability – 0, Reactivity – 0

Primary entry routes: Oral (swallowing)

Potential acute health effects:

Eyes: Eye contact may be harmful

Skin: Skin contact may be harmful

Ingestion: May be harmful if swallowed

Inhalation: May be harmful if inhaled

Medical conditions aggravated by exposure:

No known hazard

Target organs: Skin, eyes

Chronic effects: Not a likely hazard

Cancer: Not a likely hazard

Birth defects: Not available

Reproductive effects: Not available

Mutagenic effects: Not available

4. First aid measures:

Eyes: Flush eyes with water for at least 15 minutes.

Get medical attention if irritation persists

Skin: Wash with soap and water

Inhalation: Remove person to fresh air. Get medical attention if irritation persists

Ingestion: Drink water and contact a physician if there is any irritation or nausea as product contains a biocide (<1%)

5. Fire-fighting measures:

Flash point: None

Auto-ignition temp.: Not available

Explosive limits:

LEL: Not applicable UEL: Not applicable

Extinguishing media: Water, carbon dioxide, dry chemical, synthetic foam

Fire fighting instructions: Fire fighters should wear full protective clothing, including self-contained breathing equipment

6. Accidental release measures:

Contain the spill with any available absorbent medium and store in a suitable container until proper disposal can be arranged.

7. Handling and storage:

Store any unused product in original unopened containers in a cool, dry place, away from sunlight, drafts and direct heat sources. Practice reasonable caution to avoid contact with this product. Users should wash hands before eating, drinking, chewing gum, using tobacco or the toilet. Keep out of reach of children. Do not ship or store this product with food, feed, drugs or clothing.

8. Exposure controls, personal protection, and exposure limits:

LCO: Not available

Engineering controls: Good ventilation is required.

Breathing: Use an approved air-purifying respirator if respiratory irritation is experienced.

Protective clothing: Wear clean body-covering clothing and impervious gloves when handling this product.

Eyes: Safety glasses with side shields recommended

Other protection: Washing facilities should be available.

Comments: Practice general personal hygiene after using this product. After handling any chemical or biological product, wash arms, hands and face with soap and water before eating, drinking or smoking.

9. Physical and chemical properties:

Boiling point: 100 °C (212 °F)

Volatility: Not available

pH: 6-8

Appearance: Yellow

Odour: Mild.

Physical state: Liquid

Water solubility: Not applicable

Coefficient of water/oil distribution: Not available

Bulk density: Not available

Evaporation rate: Not available

Odour threshold: Not available

In Case of Emergency Call: 1-888-744-5662

Available 24 hours a day 7 days a week from April 1st to June 15th,
otherwise available from 8:00am to 4:30pm CST, Monday to Friday.

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Freezing point: 0 °C (32 °F)

Melting Point: Not applicable

Vapor density: Not available

Specific gravity: 1.05 g/cc

10. Stability and reactivity:

Stability: Stable

Conditions to avoid: None

Hazardous polymerization: Will not occur

Chemical incompatibilities: None known

Hazardous products of decomposition:

Oxides of carbon

11. Toxicological information:

Skin absorption: Not available

Eyes: Potential irritant

Ingestion: Oral LD₅₀ is not available

Inhalation: Inhalation LC₅₀ is not available

12. Ecological information:

Toxicity to bees: Not available. Not a likely hazard

Toxicity to fish: Not available. Not a likely hazard

Toxicity to birds: Not available. Not a likely hazard

13. Disposal considerations:

This product may be disposed of by placement in any landfill approved for domestic waste.

14. Transportation information:

This product is not regulated as a hazardous material for all modes of transportation within the U.S. and Canada.

Hazard class: Not applicable

15. Regulatory information:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the Controlled Products Regulations.

Proposition 65: Contains no components subject to warning requirements

Master reference: On file

MSDS status: New MSDS

16. Other information:

Prepared by: M. Sonier

This information may not be adequate for every application and therefore it is up to the user to determine the suitability of this information based on conditions of use, storage or local regulations.

Notice: The information contained in this Material Safety Data Sheet is presented in good faith and is believed to be accurate as of the effective date shown above. However, no other warranty, expressed, or implied, is given. Laws, regulations, and/or third party rights may prevent customers from importing, using, processing and/or reselling the products described herein in a given manner. Without separate written agreement between the customer and Novozymes to such effect this document does not constitute a representation or warranty of any kind and is subject to change without further notice.

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