SAFETY DATA SHEET
METHANOL LRG


SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name          METHANOL LRG
Product number        1209
REACH registration number 01-2119433307-44-XXXX
CAS number            67-56-1
EU index number       603-001-00-X
EC number             200-659-6

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses    Solvent. Laboratory reagent.
Uses advised against Use only for intended applications.

1.3. Details of the supplier of the safety data sheet

Supplier
Reagent Chemical Services
18 Aston Fields Road
Whitehouse Industrial Estate
Runcorn
Cheshire WA7 3DL

T: 01928 716903 (08.30 - 17.00)
F: 01928 716425
E: info@reagent.co.uk

1.4. Emergency telephone number

Emergency telephone
OHES Environmental Ltd 24-7
Tel. 0333 333 9939 (24 hour)

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical hazards Flam. Liq. 2 - H225
Health hazards Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 STOT SE 1 - H370
Environmental hazards Not Classified

2.2. Label elements

EC number 200-659-6
METHANOL LRG

Pictogram

Signal word Danger

Hazard statements
- H225 Highly flammable liquid and vapour.
- H301+H311 Toxic if swallowed or in contact with skin.
- H330 Fatal if inhaled.
- H370 Causes damage to organs.

Precautionary statements
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P314 Get medical advice/ attention if you feel unwell.
- P405 Store locked up.
- P501 Dispose of contents / container to hazardous waste depot.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P260 Do not breathe vapours.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P330 Rinse mouth.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER/ doctor if you feel unwell.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards
This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

Product name METHANOL LRG

REACH registration number 01-2119433307-44-XXXX
EU index number 603-001-00-X
CAS number 67-56-1
EC number 200-659-6

SECTION 4: First aid measures

4.1. Description of first aid measures

General information First aid personnel should wear appropriate protective equipment during any rescue. Keep affected person away from heat, sparks and flames. Consult a physician for specific advice. Show this Safety Data Sheet to the medical personnel.
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Inhalation
Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.

Ingestion
Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Rinse mouth thoroughly with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Keep affected person warm and at rest. Get medical attention immediately.

Skin contact
Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention immediately.

Eye contact
Remove affected person from source of contamination. Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes and get medical attention.

Protection of first aiders
First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that airborne contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus.

4.2. Most important symptoms and effects, both acute and delayed

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Ingestion
Toxic if swallowed. Swallowing concentrated chemical may cause severe internal injury. Nausea, vomiting. Pneumonia may be the result if vomited material containing solvents reaches the lungs.

Skin contact
Toxic in contact with skin. Repeated exposure may cause skin dryness or cracking.

Eye contact
May cause irritation, lachrymation and blurred vision.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

Specific treatments
No specific chemical antidote is known to be required after exposure to this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards
The product is highly flammable. Containers can burst violently or explode when heated, due to excessive pressure build-up. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products
Thermal decomposition or combustion products may include the following substances: Oxides of carbon.

5.3. Advice for firefighters
METHANOL LRG

Protective actions during firefighting

Fight fire from safe distance or protected location. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Wear chemical protective suit. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage. Take precautionary measures against static discharges. Avoid inhalation of vapours and contact with skin and eyes. Treat the spilled material according to the instructions in the clean-up section. Wash thoroughly after dealing with a spillage.

For emergency responders

Wear protective clothing as described in Section 8 of this safety data sheet. Treat the spilled material according to the instructions in the clean-up section. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Environmental precautions

To prevent release, place container with damaged side up. Do not discharge into drains or watercourses or onto the ground. Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Stop leak if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Small Spillages: Absorb small quantities with paper towels and evaporate in a safe place. Large Spillages: To prevent release, place container with damaged side up. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Dispose of contents/container in accordance with local regulations. Clean contaminated objects and areas thoroughly, observing environmental regulations. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections

Reference to other sections

Refer to sections 8 and 13 for additional information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Do not handle until all safety precautions have been read and understood. Avoid inhalation of vapours and contact with skin and eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Earth container and transfer equipment to eliminate sparks from static electricity. Use explosion-proof electrical, ventilating and lighting equipment.

Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Clean equipment and the work area every day. Take off immediately all contaminated clothing and wash it before reuse. Care should be taken to avoid contact with contaminants when removing contaminated clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from oxidising materials, heat and flames. Earth container and transfer equipment to eliminate sparks from static electricity. Store away from incompatible materials (see Section 10).
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Storage class
Flammable liquid storage.

7.3. Specific end use(s)
Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits
Long-term exposure limit (8-hour TWA): WEL 200 ppm(Sk)  266 mg/m³(Sk)
Short-term exposure limit (15-minute):  WEL 250 ppm(Sk)  333 mg/m³(Sk)
WEL = Workplace Exposure Limit

DNEL
- Workers - Inhalation; Long term systemic effects: 260 mg/m³
- Workers - Inhalation; Short term systemic effects: 260 mg/m³
- Workers - Inhalation; Long term local effects: 260 mg/m³
- Workers - Inhalation; Short term local effects: 260 mg/m³
- Workers - Dermal; Long term systemic effects: 40 mg/kg/day
- Workers - Dermal; Short term systemic effects: 40 mg/kg/day
- General population - Inhalation; Long term systemic effects: 50 mg/m³
- General population - Inhalation; Short term systemic effects: 50 mg/m³
- General population - Inhalation; Long term local effects: 50 mg/m³
- General population - Inhalation; Short term local effects: 50 mg/m³
- General population - Dermal; Long term systemic effects: 8 mg/kg/day
- General population - Dermal; Short term systemic effects: 8 mg/kg/day
- General population - Oral; Long term systemic effects: 8 mg/kg/day
- General population - Oral; Short term systemic effects: 8 mg/kg/day

PNEC
- Fresh water; 20.8 mg/l
- Marine water; 2.08 mg/l
- STP; 100 mg/l
- Sediment (Freshwater); 77 mg/kg
- Sediment (Marine water); 7.7 mg/kg
- Soil; 100 mg/kg

8.2. Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation. Use explosion-proof general and local exhaust ventilation.

Eye/face protection
Wear tight-fitting, chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166. If inhalation hazards exist, a full-face respirator may be required instead.

Hand protection
Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The breakthrough time for any glove material may be different for different glove manufacturers. It should be noted that liquid may penetrate the gloves. For exposure up to 4 hours, wear gloves made of the following material: Butyl rubber. Viton rubber (fluoro rubber). Thickness: ~ 0.7 mm Frequent changes are recommended.
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Other skin and body protection
Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible. For the greatest protection, clothing should include anti-static overalls, boots and gloves. Wear suitable protective clothing made of the following material: Butyl rubber, Viton rubber (fluoro rubber).

Hygiene measures
Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Respiratory protection
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Organic vapour filter.

Environmental exposure controls
See section 6 for details.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
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<tr>
<td>Colour</td>
<td>Colourless</td>
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<tr>
<td>Odour</td>
<td>Characteristic</td>
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<td>Odour threshold</td>
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<tr>
<td>pH</td>
<td>No information available.</td>
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<tr>
<td>Melting point</td>
<td>Approx. -98°C</td>
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<tr>
<td>Initial boiling point and range</td>
<td>Approx. 65°C @ 760 mm Hg</td>
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<tr>
<td>Flash point</td>
<td>9.7°C PMCC (Pensky-Martens closed cup).</td>
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<td>Evaporation rate</td>
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<tr>
<td>Evaporation factor</td>
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<tr>
<td>Flammability (solid, gas)</td>
<td>No</td>
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<tr>
<td>Vapour pressure</td>
<td>169.27 hPa @ 25°C</td>
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<tr>
<td>Vapour density</td>
<td>~ 1.11</td>
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<tr>
<td>Relative density</td>
<td>~ 0.790 - 0.793 @ 20°C</td>
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<tr>
<td>Bulk density</td>
<td>Scientifically unjustified.</td>
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<tr>
<td>Solubility(i)</td>
<td>&gt; = 1000 g/l water @ 20°C Soluble in the following materials: Acetone. Chloroform. Ethanol. Ether.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>log Pow: ~ -0.74 REACH dossier information.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>455°C REACH dossier information.</td>
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<tr>
<td>Decomposition Temperature</td>
<td>No specific test data are available.</td>
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<tr>
<td>Viscosity</td>
<td>0.544 - 0.59 mPa s @ 25°C REACH dossier information.</td>
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<tr>
<td>Explosive properties</td>
<td>No specific test data are available.</td>
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</tbody>
</table>
METHANOL LRG

Explosive under the influence of a flame
Not considered to be explosive.

Oxidising properties
Does not meet the criteria for classification as oxidising.

Comments
Information given is applicable to the product as supplied.

9.2. Other information
Other information
None.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity
The following materials may react violently with the product: Oxidising materials. Strong acids. Strong alkalis.

10.2. Chemical stability
Stability
Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
The following materials may react violently with the product: Strong acids. Strong alkalis. Strong oxidising agents. Will not polymerise.

10.4. Conditions to avoid
Conditions to avoid
Avoid excessive heat for prolonged periods of time. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented.

10.5. Incompatible materials
Materials to avoid
Avoid contact with the following materials: Strong acids. Strong alkalis. Strong oxidising agents.

10.6. Hazardous decomposition products
Hazardous decomposition products
Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
Notes (oral LD₅₀)
LD0 2528 mg/kg, Oral, Rat
ATE oral (mg/kg)
100.0

Acute toxicity - dermal
Notes (dermal LD₅₀)
No information available.
ATE dermal (mg/kg)
300.0

Acute toxicity - inhalation
Acute toxicity inhalation (LC₅₀ vapours mg/l)
43.68
Species
Rat
Notes (inhalation LC₅₀)
REACH dossier information.
ATE inhalation (vapours mg/l)
3.0
Skin corrosion/irritation
METHANOL LRG

Human skin model test
No information available.

Serious eye damage/irritation
Based on available data the classification criteria are not met.

Respiratory sensitisation
No specific test data are available.

Skin sensitisation
Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity
Bacterial reverse mutation test: Negative.

Genotoxicity - in vitro
Micronucleus assay: Negative.

Carcinogenicity
NOAEC >1.3 mg/l, Inhalation, Mouse

Reproductive toxicity
Fertility;, One-generation study - NOAEL <1000 mg/kg, Oral, Mouse P

Developmental toxicity: - NOAEC: 5.98 mg/l, Oral, Rat

Specific target organ toxicity - single exposure
Conclusive data but not sufficient for classification.

Target organs
Central nervous system

Specific target organ toxicity - repeated exposure
NOAEC 6.66 mg/l, Inhalation, Rat

Target organs
Central nervous system Eyes

Inhalation
Toxic by inhalation. A single exposure may cause the following adverse effects: Vapours may cause headache, fatigue, dizziness and nausea. Prolonged or repeated exposure may cause the following adverse effects: Central nervous system depression.

Ingestion
Toxic if swallowed. A single exposure may cause the following adverse effects: May cause nausea, headache, dizziness and intoxication. Prolonged or repeated exposure may cause the following adverse effects: Central nervous system depression. Unconsciousness, possibly death.

Skin contact
Toxic in contact with skin. May be absorbed through the skin. Prolonged skin contact may cause redness and irritation.

Eye contact
Irritating to eyes.

Route of entry
Inhalation Skin absorption Ingestion.

Target organs
Central nervous system Eyes

SECTION 12: Ecological Information

12.1. Toxicity

Acute toxicity - fish
LC50, 96 hours: 15400 mg/l, Lepomis macrochirus (Bluegill)
METHANOL LRG

Acute toxicity - aquatic invertebrates
EC₅₀, 96 hours: 18260 mg/l, Daphnia magna

Acute toxicity - aquatic plants
EC₅₀, 96 hours: 22000 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms
EC₅₀, 15 hours: 20000 mg/l, Activated sludge

Acute toxicity - terrestrial
NOEC, 35 days: 10000 mg/kg.

Chronic toxicity - fish early life stage
EC₅₀, 200 hours: 14536 mg/l, Oryzias latipes (Red killifish)

12.2. Persistence and degradability
Phototransformation
Air - Degradation (%) 50: 17.2 days

Stability (hydrolysis)
Scientifically unjustified.

Biodegradation
Water - Degradation 82.7: 5 days
The substance is readily biodegradable.

Biological oxygen demand 1.236 g O₂/g substance

12.3. Bioaccumulative potential
Bioaccumulative potential
Scientifically unjustified. BCF: 1,

Partition coefficient
log Pow: ~ -0.74 REACH dossier information.

12.4. Mobility in soil
Mobility
The product is miscible with water and may spread in water systems.

Adsorption/desorption coefficient
Expected to have a low potential for adsorption.

Henry's law constant 0.461 Pa m3/mol @ 25°C

Surface tension
No specific test data are available.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects
Other adverse effects
None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information
When handling waste, the safety precautions applying to handling of the product should be considered. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor.

Disposal methods
Reuse or recycle products wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number
UN No. (ADR/RID) 1230
METHANOL LRG

UN No. (IMDG) 1230
UN No. (ICAO) 1230
UN No. (ADN) 1230

14.2. UN proper shipping name
Proper shipping name (ADR/RID) METHANOL
Proper shipping name (IMDG) METHANOL
Proper shipping name (ICAO) METHANOL
Proper shipping name (ADN) METHANOL

14.3. Transport hazard class(es)
ADR/RID class 3
ADR/RID subsidiary risk 6.1
ADR/RID classification code FT1
ADR/RID label 3
IMDG class 3
IMDG subsidiary risk 6.1
ICAO class/division 3
ICAO subsidiary risk 6.1
ADN class 3
ADN subsidiary risk 6.1

14.4. Packing group
ADR/RID packing group II
IMDG packing group II
ADN packing group II
ICAO packing group II

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user
EmS F-E, S-D
ADR transport category 2
Hazard Identification Number (ADR/RID) 336
METHANOL LRG

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

Health and Safety at Work etc. Act 1974 (as amended).
Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation


Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are known for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS
All the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

DNEL: Derived No Effect Level.
DMEL: Derived Minimal Effect Level.
PNEC: Predicted No Effect Concentration.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
IATA: International Air Transport Association.
IMDG: International Maritime Dangerous Goods.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
Flam. Liq. = Flammable liquid

General information

Only trained personnel should use this material.

Key literature references and sources for data


Classification procedures according to Regulation (EC) 1272/2008

METHANOL LRG

Revision date: 20/08/2018
Revision: 2
Supersedes date: 25/10/2017
SDS number: 21039
SDS status: Approved.

Hazard statements in full:
H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H330 Fatal if inhaled.
H370 Causes damage to organs.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.