



Safety Data Sheet

Blendex 70-100

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1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY UNDERTAKING

1.1. Product identifier

Product name /
Designation **BLENDEX 70-100**

Chemical Description Mixture

CAS number Not applicable

EC number Not applicable

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

Relevant identified
uses Blendex explosives are mixed on-site and intended for intermediate use as a general explosive column charge. Blendex products described here are suitable for use in diameters greater than or equal to 85 mm, depending on primer/use conditions. Blendex 70 and above are pumped.

1.3. Details of the supplier of the safety data sheet

Name Irish Industrial Explosives Ltd.,

Address Clonagh,
Enfield,
Co. Meath

Telephone +353 46 954 1086

Fax +353 46 954 1383

Contact email pgill@kemek.ie

1.4. Emergency telephone number

Telephone + 353 86 780 5119

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or the mixture

2.1.1. Classification of the mixture according to DPD (1999/45/EC)

E; Explosive R2 Risk of explosion by shock, friction, fire or other sources of ignition.
Xi, Irritant R36 Irritating to eyes.

2.1.2. Classification of the mixture according to CLP (1272/2008/EC)

Expl. 1.1 H201 Explosive; mass explosion hazard.
Eye Irrit. 2 H319 Causes serious eye irritation.



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2.2. Label elements according to the regulation (EC) n° 1272/2008 (CLP)

Hazard pictograms



Signal word

Danger

Hazard statements

H201 Explosive; mass explosion hazard.
H319 Causes serious eye irritation.

Precautionary statements-
Prevention

P210 Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
P280 Wear protective gloves/protective clothing/eye protection/ face protection.

Precautionary statements-
Intervention

P372 Explosion risk in case of fire.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

Precautionary statements-
Storage

P401 Store in a safe and suitable place in accordance with legal requirements.

Precautionary statements-
Disposal

P501 Dispose of contents/container Dispose of the product/container in accordance with local regulations on the disposal of explosive and contaminated waste.

Supplemental Hazard information

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2.3. Other hazards

May cause explosion or fire if handled improperly.



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3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	CAS-Nr.	EC-Nr.	Index-Nr.	Concentration	Classification DSD/CLP
Ammonium nitrate	6484-52-2	229-347-8	-	>60 ≤ 90	Eye Irrit. 2 H319 Oxid. Solid 3 H272 Xi; R36 O; R8
Distillates (petroleum)	Mixture (64742-53-6*, 64742-46-7** and/or 64742-55-8*)	Mixture (265-156-6*, 265-148-2** and/or 265-158-7*)		≤ 6	Asp Tox 1 H304 Carc. 2 H351 Xn; R65 Carc. Cat. 3; R40
Fuels, diesel**	68334-30-5	269-822-7		≤ 1.5	Asp. Tox. 1 H304 Skin Irrit. 2 H315 Acute Tox. 4 H332 Carc. 2 H351 Repr. 2 H361 STOT SE 2 H371 Aquatic Chronic 2 H411 Xi; R38 Xn; R65, R20 N; R51/53 Carc. Cat. 3; R40
Sodium Thiocyanate 50% Solution	540-72-7	208-754-4		< 0.5	Acute Tox. 4 H302, H312, H332 Aquatic Chronic 3 H412
Sodium nitrite	7632-00-0	231-555-9		< 0.2	Ox. Sol. 3 H272 Acute tox. 3 H301 Eye Irrit. 2 H319 Aquatic Acute 1 H400 O; R8 T; R25 N; R50

*Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil derived substances in Part 3.

**Note N: The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen. This Note applies only to certain complex oil-derived substances in Part 3.

4. FIRST AID MEASURES



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4.1. Description of first aid measures

General descriptions	Call a POISON CENTER or doctor/physician if you feel unwell.
After inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Perform artificial respiration if breathing has stopped. Get medical attention.
After skin contact	Wash the affected areas thoroughly with soap and plenty of water. If skin irritation persists: Get medical advice/attention.
After eye contact	Rinse thoroughly with water for at least 15 minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists, consult an ophthalmologist.
After ingestion	DO NOT INDUCE VOMITING. Get medical attention if persistence.

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

Eye contact	After eye contact, a serious eye irritation may occur (irritating, redness).
Skin contact	After skin contact, a skin and mucous membranes' irritation may occur (irritating, redness).
Inhalation	Blendex 70-100 can be toxic if inhaled. The symptoms may be headache, nausea and sleep disorders.
Ingestion	Blendex 70-100 can be toxic if ingested. The symptoms may be headache, nausea and sleep disorders.

4.3. Indication of immediate medical attention and special treatment

Treat symptomatically

5. FIREFIGHTING MEASURES

- 5.1. Extinguishing media** Appropriate: Large quantities of water must be used to cool and protect exposed material.
- Inappropriate: not determined
- 5.2. Special hazards arising from the substance or mixture** If the product is enveloped in flames, there is an immediate risk of explosion, so evacuate as quickly as possible, to at least 300 meters from the flames, and if possible seek shelter behind a natural or artificial barrier. Product combustion generates toxic fumes and gases, mainly carbon monoxide and nitrous fumes.
- 5.3. Advice for firefighters** If the flames do not involve the product directly, extinguish them using the media recommended for the specific type of fire. Move the product away from the fire if possible.
If the fire directly involves the product, evacuate the area immediately to an upwind position to avoid breathing the fumes. There is an explosion



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risk so in case of fire so DO NOT fight fire when it reaches explosives. Only if possible, fight the fire from a protected position, wearing self-contained breathing apparatus and using large quantities of water.

6. ACCIDENTAL RELEASE MEASURES

- | | |
|---|--|
| 6.1. Personal precautions, protective equipment and emergency procedures | Wash your hands thoroughly after handling. Wear eye protection and protective gloves.
Gather the dispersed product using rigorously anti-sparking tools and equipment (wood, plastic,).
Eliminate all potential sources of ignition and avoid any action that could cause an impact, friction, sparking or a sudden rise in temperature. |
| 6.2. Environmental precautions | Do not let the product get into the soil and water. Call the fire brigade if soil or water is contaminated. |
| 6.3. Methods and material for containment and cleaning up | Place the product in a suitable container, preferably a cardboard box or canister that can be sealed after removal of the product.
Dispose of the product/container in accordance with local regulations on the disposal of contaminated waste. |
| 6.4. Reference to other sections | Refer to sections: 7 for safe handling, 8 for personal protective equipments, 13 for disposal. |

7. HANDLING AND STORAGE

- | | |
|--|--|
| 7.1. Precautions for safe handling | Handle carefully.
Wash your hands thoroughly after handling.
Keep the product away from heat/direct sunlight/other sources of ignition (including combustible materials).
Earth all electrical equipment present and any conductive item.
Do not eat, drink or smoke. Remove contaminated clothes and PPE before entering areas where food and drink are consumed.
When handling the product, avoid ingesting or inhaling any solid particles that are formed. |
| 7.2. Conditions for safe storage, including any incompatibilities | Take measures to avoid the generation and accumulation of electrostatic charges.
Store only in authorized areas that are suitable for the purpose.
Incompatible with acids, alkalis and highly reactive materials such as reducing agents and highly oxidizing agents.
Explosives and explosive items are physically incompatible with moisture, nitrophenols and materials other than powder that can penetrate the explosive and alter its characteristics.
Combinations with phosphorous, ammonium, amines, metal powders, chlorates, mercury, and organic compounds or solvents must be avoided. |



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7.3. Specific end use(s)

The product is supplied for use, testing and analysis by qualified personnel who have been fully trained to handle explosives.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Not applicable

8.2. Exposure controls

Appropriate engineering controls Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

Eye/face protection: Wear eye protection.

Hand protection: Wear protective gloves (PVC, latex, rubber).

Body protection: Wear suitable clothing. Work clothes must be antistatic, made of cotton for instance, and flame retardant.

Respiratory protection: Not applicable.

Hygiene measures: Wash contaminated clothes before reuse.

Environmental exposure controls

Do not let the product get into the soil and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information of basic physical and chemical properties

- Physical state: Viscous fluid containing varying amounts of suspended solids (ammonium nitrate).
- Colour: Light brown/white.
- Odour: Slightly oily/diesel smell. May also smell of vinegae.
- Odour threshold: Not available.
- pH: 4-7
- Melting point / range: Not available.
- Boiling point / range: Not available.
- Flashpoint: Not available.
- Evaporation rate: Not available.



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- Auto-ignition temperature	> 150°C
- Flammability	Not available.
- Upper/Lower flammability or explosive limits	Not available.
- Vapour pressure	Not available.
- Vapor density	Not available.
- Gravimetric density	Not available.
- Packing density	Not available.
- Relative density	> 1
- Water solubility	Not available.
- Other solvents	Not available.
- Partition coefficient n-Octanol/Water (log P _{O/W})	Not available.
- Decomposition temperature	Not available.
- Viscosity	Not available.
- Explosion properties	Not available.
- Oxidizing properties	Not available.

9.2. Other information

Not available.

10. STABILITY AND REACTIVITY

10.1. Reactivity

Impact, friction, electrostatic discharge, excessive temperature rise, naked flames and other causes of ignition can cause explosion.
Fire can lead to explosion.

10.2. Chemical stability

Stable under the recommended storage and use conditions and at moderately elevated temperatures and pressures.



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10.3. Possibility of hazardous reactions	When the product is exposed to heat, there is a risk for explosion at temperatures well below the auto-ignition temperature.
10.4. Conditions to avoid	Keep away from heat, sparks, naked flames and hot surfaces. Do not store at temperatures in excess of 45°C. Avoid scratching impact, shock and friction.
10.5. Incompatible materials	Incompatible with acids, alkalis and highly reactive materials such as reducing agents and highly oxidizing agents. Explosives and explosive items are physically incompatible with moisture, nitrophenols and materials other than powder that sensitize the explosive and lead to an uncontrollable reaction. Combinations with phosphorous, ammonium, amines, metal powders, chlorates, mercury, and organic compounds or solvents must be avoided.
10.6. Hazardous decomposition materials	Nitrous fumes and carbon monoxide during combustion.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicity	Exposure to the product by ingestion or inhalation may generate acute or chronic symptoms such as headache, nausea and sleep disorders.
Skin corrosion/irritation	Prolonged and repeated contacts can irritate the skin.
Serious eye damage/irritation	Irritant.
Sensitisation	May sensitize skin to other chemicals.
STOT-repeated exposure	Not available
Germ cell mutagenicity	Not available
Carcinogenicity	Not available
Reproductive toxicity	Not available
STOT-single exposure	Not available
Aspiration hazard	Not available

11.2. Other information

Not applicable.

12. ECOLOGICAL INFORMATION



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12.1. Toxicity

Environmental dispersion may cause ecological impacts because the product contains ammonium nitrate, which is highly soluble in water, leading to eutrophication of algae.

Aquatic toxicity of Ammonium nitrate

<i>Fish</i>	LC50 24h	650 mg/L
<i>Daphnia</i>	LC50 24h	340 mg/L
<i>Algae</i>	LC50 5j	2.5 mg/L

12.2. Persistence and degradability

Not available

12.3. Bioaccumulation potential

Not available

12.4. Mobility in the soil

Material is waterproof.

12.5. Results of PBT and vPvB assessment

Not available

12.6. Other adverse effects

Not available

12.7. Additional information

Not available

13. DISPOSAL CONSIDERATIONS

Considering the potential risk associated with the kind of product, it must only be disposed by personnel specifically trained for the purpose.

13.1. Waste treatment methods

Dispose in accordance with local and national regulations.

13.2. Waste code numbers

Not available

14. TRANSPORT INFORMATION

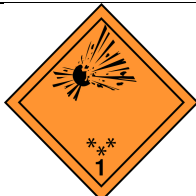
	Overland transport (ADR/RID)	River transport (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN Number		0082		Forbidden



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14.2. UN proper shipping name	MINE EXPLOSIVE TYPE B.	Forbidden
14.3. Transport hazard classes	1	Forbidden
14.4. Packing group	-	Forbidden
14.5. Environmental hazards	-	Forbidden
14.6. Classification	0082 MINE EXPLOSIVE TYPE B; 1	Forbidden
14.7. Classification code	1.1 D	Forbidden
14.8. Label		Forbidden
14.9. Limited Quantity (LQ)	-	
14.10. Additional information	-	EMS number: F-B, S-Y

15. REGULATORY INFORMATION

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

- Regulation (EC) no. 453/2010 of the Commission of 20th May 2010, amending regulation (EC) no. 1907/2006 REACH.
- Regulation (EC) no. 1272/2008 of the European Parliament and Council, of 16th December 2008, amending regulation (EC) no. 1907/2006 REACH;
- Regulation (EC) no. 1907/2006 of the European Parliament and Council of 18th December 2006, concerning REACH;
- Directive no. 1999/48/EEC of the European Parliament and Council of 31st May 1999 on the classification, packaging and labelling of dangerous substances.
- Directive no. 67/548/EEC of the Council of 27th June 1967 on the classification, packaging and labelling of dangerous substances.
- Recommendations on the Transport of Dangerous Goods (UN).
- ADR "European Agreement regarding the International Carriage of Dangerous Goods by Road".
- RID "European Agreement regarding the International Carriage of Dangerous Goods by Rail".
- IMO/IMDG "International Maritime Transport of Dangerous Goods (sea)".
- ADN "European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways".
- IATA/ICAO "Technical Instructions for the International Carriage of Dangerous Goods by Air".
- All official applicable texts regarding legal requirements for this product category.



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15.2. Chemical safety assessment

Not available

16. OTHER INFORMATION

16.1. Indication on the revision

Revision of the SDS on the 8th of July 2014 in conformity with Reach regulation 1907/2006 (EC)

16.2. Abbreviations and acronyms

ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on inland waterways.

ADR/RID: European Agreement concerns the International Carriage of Dangerous Goods by Road/ Regulations concerning the international carriage of dangerous goods by rail.

CAS N°.: Chemical Abstract Service Number

CFR: Code of Federal Regulations

CLP: Classification, Labeling and Packaging

DSD: Dangerous Substance Directive

DPD: Dangerous Preparation Directive

EC No.: European Commission Number

IATA: International Air Transport Associations

IMDG: International Maritime Dangerous Goods code

PBT: Persistent, Bioaccumulative, Toxic

UN N°.: United Nations Number

vPvB: very Persistent and very Bioaccumulative

16.3. Key literature references and sources for data

Not applicable.

16.4. Classification of mixtures and applied evaluation method

Not applicable.

16.5. Wording of the R- and H- phrases (which are not written in full under section 2 to 15)

Risk phrases:

R8 Contact with combustible material may cause fire.

R20 Harmful by inhalation.

R22 Harmful if swallowed.

R25 Toxic if swallowed.

R36 Irritating to eyes.

R38 Irritating to skin.

R40 Limited evidence of a carcinogenic effect.

R50 Very toxic to aquatic organisms.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

H statements:

H272 May intensify fire; oxidizer.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.



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- H315 Cause skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H351 Suspected of causing cancer.
- H361 Suspected of damaging fertility or the unborn child.
- H371 May cause damage to organs.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

16.6. Training advice

Not available.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. By using suitable industrial safety precautions, it is paramount to make sure that the relevant exposition measures at the work place are adhered to, and negative health effects are avoided.