June 12, 2015

Mr. Eric Max
Nest Labs Inc
3400 Hillview Ave
Palo Alto, CA 94304-1027

Subject File NC25325, Project Number 4786788224, Investigation Module 5 of 5 Completed Evaluation of Models A13 and A14 Smoke/CO Alarms according to EN 14604 dated 2005 and EN 50291-1/A1 dated 2010/2012.

Dear Mr. Max:

Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

This is in regards to the above referenced subject.

Congratulations! We have completed the evaluation of Models A13 and A14 Smoke/CO Alarms according to the requirements of EN 14604 dated 2005, and EN 50291-1/A1 dated 2010/2012, and the models were deemed to comply with the applicable requirements.

Models A13 and A14 have been evaluated under the Construction Products Regulation according to EN 14604 dated 2005. The Certificate of Constancy of Performance for EN 14604 associated with this evaluation is being processed and will be provided soon.

Models A13 and A14 have also been evaluated for UL-EU Marking according to EN 14604 dated 2005 and EN 50291-1/A1 dated 2010/2012. The Certificate for UL-EU Marking associated with this evaluation is being processed and will be provided soon.

This completes the work under this Investigation Module 5, as well as all work associated with this project 4786788224. This letter will serve to close this Investigation Module 5 and project 4786788224. All samples associated with this investigation are being returned to you at the address noted above.

It was a pleasure working with you on this investigation, and we are excited you are now able to apply the 0843 CE mark and UL-EU Mark to your products.

If you have any questions, please do not hesitate to contact me at your earliest convenience.

Regards,

David Plummer
Senior Project Engineer
Department: 3017ANBK
Tel: (847) 664-1788
E-mail: David.Plummer@ul.com

Reviewed for EN 14604 by:

Richard Bristow
Senior Project Engineer
Department: 3000ILND
Tel: 011-44-1-925-258-872
E-mail: Richard.Bristow@ul.com

Reviewed for EN 50291-1 by:

Hugo V. Lopez
Staff Engineer
Department: 3017ANBK
Tel: (847) 664-2547
E-mail: Hugo.V.Lopez@ul.com

Declaration of Performance: 097-00005-00

1. Unique identification code:

A13
A14

2. Type, batch or serial number(s) or any other element allowing identification of the construction product as required pursuant to Article 11(4):

Serial number examples:
06A############
06C############

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

Self-contained smoke alarms with carbon monoxide alarm for use in single-family and multi-family dwellings

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):

Nest Labs (Europe) Limited, Gordon House, Barrow Street, Dublin 4, Ireland

5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):

Not Applicable

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:

System 1

7. In case of the declaration of performance concerning a construction product covered by a harmonized standard:

UL EU
333 Pfingsten Road,
Northbrook, IL 60062

has performed type testing and the initial inspection of the manufacturing plant and of factory production control with continuous surveillance, assessment and approval of the factory production control under system 1 and issued following certificate of constancy of performance:

0843-CPR-0240

8. Declared performance:
All requirements including all Essential Characteristics and the corresponding performances for the intended use or uses indicated in 3. above have been determined as described in the hEN mentioned in the following table.

Harmonized Technical Specification		**EN 14604:2005 + AC1:2008**
Essential Characteristics	**Performance** **Models A13 A14**	**Clause**
Nominal activation conditions / sensitivity / response delay (response time) and performance under fire condition (1)		
Smoke alarm signals	Pass	4.12
Inter-connectable smoke alarms	Pass	4.18
Repeatability	Pass	5.2
Directional dependence	Pass	5.3
Initial sensitivity	Pass	5.4
Air movement	Pass	5.5
Dazzling	Pass	5.6
Fire sensitivity	Pass	5.15
Sound output	Pass	5.17
Sounder durability	Pass	5.18
Inter-connectable smoke alarms	Pass	5.19
Alarm silence facility	Pass	5.2
Operational reliability		
Compliance	Pass	4.1
Individual alarm indicator	Pass	4.2

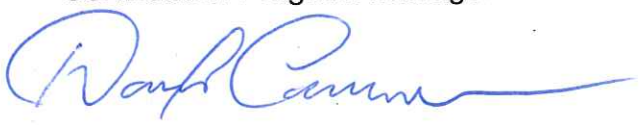
Harmonized Technical Specification		EN 14604:2005 + AC1:2008
Essential Characteristics	**Performance** **Models A13 A14**	**Clause**
Mains on indicator	Pass	4.3
Means of calibration	Pass	4.5
User replaceable components	Pass	4.6
Normal power source	Pass	4.7
Standby power source	Pass	4.8
Electrical safety requirements	Pass	4.9, 5.24
Routine test facility	Pass	4.1
Terminals for external conductors	Pass	4.11
Battery removal indication	Pass	4.13
Battery connections	Pass	4.14
Battery capacity	Pass	4.15
Protection against the ingress of foreign bodies	Pass	4.16
Marking and data	Pass	4.19
Impact	Pass	5.11
Battery fault warning	Pass	5.16
Battery reversal	Pass	5.22
Tolerance to Supply Voltage		
Variation in supply voltage	Pass	5.21
Durability of Operational Reliability		

Harmonized Technical Specification		EN 14604:2005 + AC1:2008
Essential Characteristics	Performance Models A13 A14	Clause
Dry heat	Pass	5.7
Cold (operational)	Pass	5.8
Damp heat (operational)	Pass	5.9
Sulphur dioxide (SO_2) corrosion	Pass	5.1
Vibration (operational)	Pass	5.12
Vibration (endurance)	Pass	5.13
Durability of Operational Reliability, Electrical Stability		
Electromagnetic compatibility (EMC), immunity (operational)	Pass	5.14

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Name: David Cassano
Position: Certification Program Manager

Signature: 

Date of issue: 16, June 2015
Place of issue: Nest Labs (Europe) Limited
Gordon House, Barrow Street, Dublin 4, Ireland

telefication bv
The Netherlands
Chamber of Commerce
51565536
www.telefication.com

telefication

Statement

of Opinion

No.: 152140108/AA/00

With respect to Chapter 10 of the Telecommunications Act of The Netherlands, Telefication declares that to our opinion the listed product complies with the essential requirements, in accordance with Article 3 of the Directive 1999/5/EC, as indicated under Annex 1 of this statement.

Product description:	**Wireless Protect**
Trademark:	**See annex 3**
Family name:	**--**
Type designation:	**See annex 3**
Serial No:	**See annex 3**
Hard-|Software release No:	**--**
Manufacturer:	**Nest Labs Inc**
Address:	**3400 Hillview Ave.**
City:	**94304 Palo Alto**
Country:	**United States**

This statement is granted to:

Name:	**Nest Labs Inc**
Address:	**3400 Hillview Ave.**
City:	**94304 Palo Alto**
Country:	**United States**

This statement has THREE Annexes.

Zevenaar, 09 June 2015

CE

i.o.

W.J.M. Jong
Manager Product Certification

RvA PRODUCTS RvA C 224

For each product to which this Statement of Opinion relates (see annex 3) our opinion with respect to the essential requirements is as follows:

Article 3.1

C (a) The protection of the health and safety of the user and other person, including the objectives with respect to safety requirements contained in Directive 73/23/EEC*), but with no voltage limit applying.

C (b) The protection requirements with respect to electromagnetic compatibility contained in Directive 89/336/EEC*).

*) In addition standards published under Directives 2006/95/EC, 2004/108/EC, 90/385/EEC and 93/42/EEC may have been used to demonstrate compliance with articles 3.1.a and 3.1.b of Directive 1999/5/EC.

Article 3.2

C The radio product shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communication and orbital resources so as to avoid harmful interference.

Article 3.3

NA (a) The product shall be so constructed that it interworks via networks with other apparatus and that it can be connected to interfaces of the appropriate type throughout the Community.

NA (b) The product shall be so constructed that it does not harm the network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service.

NA (c) The product shall be so constructed that it incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected.

NA (d) The product shall be so constructed that it supports certain features ensuring avoidance of fraud.

NA (e) The product shall be so constructed that it supports certain features ensuring access to emergency services.

NA (f) The product shall be so constructed that it supports certain features in order to facilitate its use by users with a disability.

Opinions

C = Conform
NC = Not Conform
NA = Not applicable (for this product)
NP = Not performed (in this statement)

- The validity of this Statement of Opinion is limited to products, which are equal to the one examined in the type-examination.

- When the manufacturer (or holder of this statement) is placing the product on the European market or the countries of the EEA, the marking of this product must contain (among other elements) the Notified Body number of Telefication: 0560

- This Statement of Opinion does not imply that the product can be used in the European Union or the countries of the EEA. If the product cannot be identified as 'class-1' in accordance with Commission Decision 2000/299/EC, then:

  - Placing the product on the market may be subject to notification to the national radio agencies.
  - Putting the product into service is subject to national frequency regulation and may require licensing.

Remarks and observations

The following conditions are applicable:

Two models: A13, and A14, A13 is powered by battery; A14 is powered by line voltage

Documentation lodged for this Statement of Opinion

Test Reports:

- Bureau Veritas Consumer Products Services E & E Business: RE150213C01 R1, 15 April 2015
- Bureau Veritas Consumer Products Services E & E Business: RM150213C01 R2, 21 April 2015
- Bureau Veritas Consumer Products Services E & E Business: SE150313C15 R1, 15 April 2015
- UL San Jose: S25414-A2, 03 June 2015

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electric diagrams
- Photos
- User manual
- Product Specification
- Wifi Data Sheet

Technical Standards and Specifications

The following standards have been used in full or part to cover the essential requirements:

- EN 300 328:	June, 2012, V1.8.1
- EN 301 489-1:	September, 2011, V1.9.2
- EN 301 489-17:	September, 2012, V2.2.1
- EN 55022:	December, 2010
- EN 55022:2010/AC:2011:	October, 2011
- EN 55024:	November, 2010
- EN 60950-1:	2006
- EN 60950-1/A1:	March, 2010
- EN 60950-1/A11:	March, 2009
- EN 60950-1/A12:	February, 2011
- EN 62311:	January, 2008
- EN 62479:	September, 2010

Technical features and characteristics

The product includes the following features and characteristics:

IEEE 802.11b/g/n (20 MHz)
- Operating frequency range: 2412-2472 MHz (13 channels)
- Maximum output power: 16.76 dBm EIRP average (calculated)
- Maximum antenna gain: 0.29 dBi

Bluetooth LE
- Operating frequency range: 2402-2480 MHz (40 channels)
- Maximum output power: 0.78 dBm EIRP average (calculated)
- Maximum antenna gain: 0.27 dBi

15.4
- Operating frequency range: 2405-2480 MHz (16 channels)
- Maximum output power: 11.69 dBm EIRP average (calculated)
- Maximum antenna gain: -0.96 dBi

The product as described in this Statement of Opinion includes the following type designations:

- Product description: Wireless Protect
- Trademark: Nest
- Type Designation: A13

- Product description: Wireless Protect
- Trademark: Nest
- Type Designation: A14

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Certificate of constancy of performance
0843–CPR–0239

In compliance with the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

Nest Protect Model A13
Smoke & Carbon Monoxide Alarm

produced by or for

Nest Labs Inc
3400 Hillview Ave
Palo Alto, CA 94304
USA

and produced in the manufacturing plant(s)

Maintek Computer (Suzhou) Co. Ltd.
233 Jinfeng Road, Suzhou New District,
Jiangsu Province, 215011 P.R. China

This certificate attests that all provisions concerning the assessment and verification of constancy of performance in Annex ZA of the standard(s):

EN14604:2005 + AC1:2008 - Smoke Alarm Devices

under system AVCP 1 are applied such that the Nest Protect Model A13 fulfils all of the prescribed requirements set out above

This certificate was first issued on 12th June 2015 and will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Annex: Detailed information sheet

Certificate Number: 0843-CPR-0239

Product/Device description:

Nest Protect Model A13 Smoke and Carbon Monoxide Alarm.

Applicant designation:

Nest Labs Inc, 3400 Hillview Ave, Palo Alto, CA 94304, USA.

Product Information

Model Reference:	A13
Type:	Smoke Alarm Devices
Description:	Smoke & Carbon Monoxide Alarm with Long Life Battery.

The referenced product complies with all the relevant requirements as per EN14604:2005 + AC1:2008

Note: This CPR certificate only relates to the Smoke Alarm function of the A13 device.

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Annex: Detailed information sheet

Certificate Number: 0843-CPR-0239

Essential Characteristics		Performance	Standard
Nominal activation conditions/ Sensitivity, Response delay (response time) and Performance under fire condition			
4.12	Smoke alarm signals	Pass	EN14604: 2005
4.18	Inter-connectable smoke alarms	Pass	EN14604: 2005
5.2	Repeatability	Pass	EN14604: 2005
5.3	Directional dependence	Pass	EN14604: 2005
5.4	Initial sensitivity	Pass	EN14604: 2005
5.5	Air movement	Pass	EN14604: 2005
5.6	Dazzling	Pass	EN14604: 2005
5.15	Fire sensitivity	Pass	EN14604: 2005
5.17	Sound output	Pass	EN14604: 2005
5.18	Sound durability	Pass	EN14604: 2005
5.19	Inter-connectable smoke alarms	Pass	EN14604: 2005
5.20	Alarm silence facility (operational)	Pass	EN14604: 2005
Operational reliability			
4.1	Compliance	Pass	EN14604: 2005
4.2	Individual alarm indicator (optional)	Pass	EN14604: 2005
4.3	Mains-on indicator	Pass	EN14604: 2005
4.4	Connection of external ancillary devices	Pass	EN14604: 2005
4.5	Means of calibration	Pass	EN14604: 2005
4.6	User replaceable components	Pass	EN14604: 2005
4.7	Normal power source	Pass	EN14604: 2005
4.8	Standby power source	Pass	EN14604: 2005
4.9	Electrical safety requirements	Pass	EN14604: 2005
4.10	Routine test facility	Pass	EN14604: 2005
4.11	Terminals for external conductors	Pass	EN14604: 2005
4.13	Battery removal indicator	Pass	EN14604: 2005

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Annex: Detailed information sheet

Certificate Number: 0843-CPR-0239

Operational reliability		
4.14 Battery connections	Pass	EN14604: 2005
4.15 Battery capacity	Pass	EN14604: 2005
4.16 Protection against the ingress of foreign bodies	Pass	EN14604: 2005
4.19 Marking and data	Pass	EN14604: 2005
5.11 Impact	Pass	EN14604: 2005
5.16 Battery fault warning	Pass	EN14604: 2005
5.22 Battery reversal	Pass	EN14604: 2005
5.24 Electrical safety – assessment and testing to determine the adequacy of personal protection against hazardous currents passing through the human body (electric shock), excessive temperature and the start and spread of fire	Pass	EN14604: 2005
Tolerance to supply voltage		
5.21 Variation in supply voltage	Pass	EN14604: 2005
Durability of operational reliability and response delay, temperature resistance		
5.7 Dry heat	Pass	EN14604: 2005
5.8 Cold (Operational)	Pass	EN14604: 2005
Durability of operational reliability, vibration resistance		
5.12 Vibration (operational)	Pass	EN14604: 2005
5.13 Vibration (endurance)	Pass	EN14604: 2005
Durability of operational reliability, humidity resistance		
5.9 Damp heat (operational)	Pass	EN14604: 2005
Durability of operational reliability, corrosion resistance		
5.10 Sulfur dioxide (SO_2) Corrosion	Pass	EN14604: 2005
Durability of operational reliability, electrical stability		
5.14 Electromagnetic compatibility (EMC), immunity tests (operational)	Pass	EN14604: 2005

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Certificate of constancy of performance
0843–CPR–0240

In compliance with the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product

Nest Protect Model A14
Smoke & Carbon Monoxide Alarm

produced by or for

Nest Labs Inc
3400 Hillview Ave
Palo Alto, CA 94304
USA

and produced in the manufacturing plant(s)

Maintek Computer (Suzhou) Co. Ltd.
233 Jinfeng Road, Suzhou New District,
Jiangsu Province, 215011 P.R. China

This certificate attests that all provisions concerning the assessment and verification of constancy of performance in Annex ZA of the standard(s):

EN14604:2005 + AC1:2008 - Smoke Alarm Devices

under system AVCP 1 are applied such that the Nest Protect Model A14 fulfils all of the prescribed requirements set out above

This certificate was first issued on 12th June 2015 and will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly.

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Annex: Detailed information sheet

Certificate Number: 0843-CPR-0240

Product/Device description:

Nest Protect Model A14 Smoke and Carbon Monoxide Alarm.

Applicant designation:

Nest Labs Inc, 3400 Hillview Ave, Palo Alto, CA 94304, USA.

Product Information

Model Reference:	A14
Type:	Smoke Alarm Devices
Description:	Smoke & Carbon Monoxide Alarm, Mains Powered with Battery Backup.

The referenced product complies with all the relevant requirements as per EN14604:2005 + AC1:2008

Note: This CPR certificate only relates to the Smoke Alarm function of the A14 device.

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Annex: Detailed information sheet

Certificate Number: 0843-CPR-0240

Essential Characteristics		Performance	Standard
Nominal activation conditions/ Sensitivity, Response delay (response time) and Performance under fire condition			
4.12	Smoke alarm signals	Pass	EN14604: 2005
4.18	Inter-connectable smoke alarms	Pass	EN14604: 2005
5.2	Repeatability	Pass	EN14604: 2005
5.3	Directional dependence	Pass	EN14604: 2005
5.4	Initial sensitivity	Pass	EN14604: 2005
5.5	Air movement	Pass	EN14604: 2005
5.6	Dazzling	Pass	EN14604: 2005
5.15	Fire sensitivity	Pass	EN14604: 2005
5.17	Sound output	Pass	EN14604: 2005
5.18	Sound durability	Pass	EN14604: 2005
5.19	Inter-connectable smoke alarms	Pass	EN14604: 2005
5.20	Alarm silence facility (operational)	Pass	EN14604: 2005
Operational reliability			
4.1	Compliance	Pass	EN14604: 2005
4.2	Individual alarm indicator (optional)	Pass	EN14604: 2005
4.3	Mains-on indicator	Pass	EN14604: 2005
4.4	Connection of external ancillary devices	Pass	EN14604: 2005
4.5	Means of calibration	Pass	EN14604: 2005
4.6	User replaceable components	Pass	EN14604: 2005
4.7	Normal power source	Pass	EN14604: 2005
4.8	Standby power source	Pass	EN14604: 2005
4.9	Electrical safety requirements	Pass	EN14604: 2005
4.10	Routine test facility	Pass	EN14604: 2005
4.11	Terminals for external conductors	Pass	EN14604: 2005
4.13	Battery removal indicator	Pass	EN14604: 2005

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

EC CERTIFICATE

Notified Body No. 0843

CPR Notified Body UL International (UK) Ltd., Wonersh House, The Guildway, Old Portsmouth Road, Guildford, Surrey, GU3 1LR, United Kingdom

Annex: Detailed information sheet

Certificate Number: 0843-CPR-0240

Operational reliability		
4.14 Battery connections	Pass	EN14604: 2005
4.15 Battery capacity	Pass	EN14604: 2005
4.16 Protection against the ingress of foreign bodies	Pass	EN14604: 2005
4.19 Marking and data	Pass	EN14604: 2005
5.11 Impact	Pass	EN14604: 2005
5.16 Battery fault warning	Pass	EN14604: 2005
5.22 Battery reversal	Pass	EN14604: 2005
5.24 Electrical safety – assessment and testing to determine the adequacy of personal protection against hazardous currents passing through the human body (electric shock), excessive temperature and the start and spread of fire	Pass	EN14604: 2005
Tolerance to supply voltage		
5.21 Variation in supply voltage	Pass	EN14604: 2005
Durability of operational reliability and response delay, temperature resistance		
5.7 Dry heat	Pass	EN14604: 2005
5.8 Cold (Operational)	Pass	EN14604: 2005
Durability of operational reliability, vibration resistance		
5.12 Vibration (operational)	Pass	EN14604: 2005
5.13 Vibration (endurance)	Pass	EN14604: 2005
Durability of operational reliability, humidity resistance		
5.9 Damp heat (operational)	Pass	EN14604: 2005
Durability of operational reliability, corrosion resistance		
5.10 Sulfur dioxide (SO_2) Corrosion	Pass	EN14604: 2005
Durability of operational reliability, electrical stability		
5.14 Electromagnetic compatibility (EMC), immunity tests (operational)	Pass	EN14604: 2005

Issue Date: 12th June 2015

Business Manager
UL International (UK) Ltd

UL International (UK) Limited
Wonersh House, The Guildway, Old Portsmouth Road,
Guildford, Surrey, GU3 1LR, United Kingdom

Nest Protect, 2nd Generation - Battery powered

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 10/04/2015 Revision date: 17/06/2015 Version: 2.0

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

1.1. Product identifier

Product form : Article

Product name : Nest Protect, 2nd Generation - Battery powered

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Smoke + Carbon Monoxide Alarm

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Nest Labs, Inc.
3400 Hillview Ave.
94304 Palo Alto, California - United States of America
T +1 (650) 331-1127
http://nest.com

1.4. Emergency telephone number

Emergency number : +1 (703) 527-3887 / +1 (800) 424-3887
CHEMTREC (24 HOURS)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Damaged battery may release : Organic. Hazardous vapours may be released. Flammable vapours are released.

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lithium metal (lithium iron disulfide) battery			Not classified	Not classified

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : If vapour is released : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Wash with plenty of soap and water.

First-aid measures after eye contact : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Get immediate medical advice/attention.

First-aid measures after ingestion : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Drink plenty of water, Do NOT induce vomiting, Get immediate medical attention.

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

Symptoms/injuries : No significant signs or symptoms indicative of any health hazard are expected to occur.

Symptoms/injuries after inhalation : If contents are released: Corrosive to the respiratory tract.

Symptoms/injuries after skin contact : If contents are released: Burns.

Symptoms/injuries after eye contact : If contents are released: Causes serious eye damage.

Symptoms/injuries after ingestion : If contents are released: Burns. Irritation of the respiratory tract and the other mucous membranes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Class D. Lith-X powder. Dry Lithium Chloride. Graphite. Carbon dioxide.

Unsuitable extinguishing media : Do not use water. Carbon dioxide. Soda extinguisher. sand. Class A. Class B. Class C.

5.2. Special hazards arising from the substance or mixture

Fire hazard : To our knowledge, the product does not present any particular risk, under normal conditions of use. Burning produces irritating, toxic and noxious fumes.

Explosion hazard : Keep away from ignition sources.

Reactivity in case of fire : If contents are released: Reacts violently with water. On heating: release of toxic/corrosive/combustible gases/vapours.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Do not use extinguishing media containing water. Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves resistant to chemical penetration.

Emergency procedures : Stop leak, if possible without risk.

6.1.2. For emergency responders

Protective equipment : Wear suitable gloves resistant to chemical penetration.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Damaged batteries should be placed in a sealed plastic bag or a plastic-lined metal container.

Methods for cleaning up : If contents are released: Liquid spill: take up in dry sand/earth/vermiculite. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not disassemble. Do not store near food, foodstuffs, drugs, or potable water supplies.

Incompatible products	:	Oxidizer. Water. Moisture.
Incompatible materials	:	Heat sources.
Storage temperature	:	-32 - 60 °C
Heat and ignition sources	:	Keep away from heat, sparks and flame.
Prohibitions on mixed storage	:	Keep away from incompatible materials.
Storage area	:	Store in dry, cool, well-ventilated area. Keep out of reach of children. Keep out of direct sunlight.

7.3. Specific end use(s)

temperature controls.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	:	Protect from moisture.
Personal protective equipment	:	Avoid all unnecessary exposure.
Hand protection	:	None under normal use. If contents are released: Wear suitable gloves resistant to chemical penetration. EN374
Eye protection	:	None under normal use. If contents are released: Chemical goggles or safety glasses. EN166
Respiratory protection	:	None under normal use

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	No data available
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur. If contents are released: Reacts violently with water.

10.4. Conditions to avoid

Release of contents. Heat. Moisture. Avoid shock and friction.

10.5. Incompatible materials

If contents are released: Strong oxidizers. Water. Organic materials. Strong reducing agents. metals.

10.6. Hazardous decomposition products

If contents are released: Sulphur oxides. hydrogen chloride. Hydrogen. Corrosive vapours. Thermal decomposition generates : Hydrogen fluoride. Carbon oxides (CO, CO2). Aluminium. Lithium. copper. cobalt. Contact with water liberates extremely flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Other information	:	Keep the container hermetically sealed.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Nest Protect, 2nd Generation - Battery powered
PBT: not yet assessed
vPvB: not yet assessed

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	:	Do not dispose of waste into sewer.
Waste disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations.
Additional information	:	wastes from electrical and electronic equipment.
European List of Waste (LoW) code	:	For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	:	3091
UN-No. (IMDG)	:	3091
UN-No.(IATA)	:	3091
UN-No.(ADN)	:	3091
UN-No. (RID)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
Proper Shipping Name (IMDG)	:	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
Proper Shipping Name (IATA)	:	Lithium metal batteries contained in equipment
Proper Shipping Name (ADN)	:	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
Proper Shipping Name (RID)	:	Not applicable
Transport document description (ADR)	:	UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, 9, II, (E)
Transport document description (IMDG)	:	UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, 9, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	9
Danger labels (ADR)	:	9

:

IMDG

Transport hazard class(es) (IMDG)	:	9
Danger labels (IMDG)	:	9

:

IATA

Transport hazard class(es) (IATA)	:	9
Hazard labels (IATA)	:	9

:

ADN

Transport hazard class(es) (ADN)	:	9
Danger labels (ADN)	:	9

:

RID

Transport hazard class(es) (RID)	:	Not applicable

14.4. Packing group

Packing group (ADR)	:	II
Packing group (IMDG)	:	II
Packing group (IATA)	:	Not applicable
Packing group (ADN)	:	II
Packing group (RID)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No

Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	M4
Special provisions (ADR)	:	188, 230, 636, 360
Limited quantities (ADR)	:	0
Excepted quantities (ADR)	:	E0
Packing instructions (ADR)	:	P903, P903a, P903b
Transport category (ADR)	:	2
Tunnel restriction code (ADR)	:	E
EAC code	:	4W

- Transport by sea

Special provisions (IMDG)	:	188, 230, 360, 957
Limited quantities (IMDG)	:	0
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P903
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-I
Stowage category (IMDG)	:	A

- Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	970
PCA max net quantity (IATA)	:	5kg
CAO packing instructions (IATA)	:	970
CAO max net quantity (IATA)	:	35kg
Special provisions (IATA)	:	A48, A99, A154, A164, A181, A185
ERG code (IATA)	:	9FZ

- Inland waterway transport

Classification code (ADN)	:	M4
Special provisions (ADN)	:	188, 23, 36, 636, 661
Limited quantities (ADN)	:	0
Excepted quantities (ADN)	:	E0
Equipment required (ADN)	:	PP
Number of blue cones/lights (ADN)	:	0
Carriage prohibited (ADN)	:	No
Not subject to ADN	:	No

- Rail transport

Carriage prohibited (RID)	:	No

14.7. 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

15.1.1. EU-Regulations

Contains no substance on the REACH candidate list

15.1.2. National regulations

Germany

VwVwS Annex reference	:	Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
GHS classification information.

Abbreviations and acronyms:

	CLP: Classification, Labelling, Packaging.
	CFR: Code of Federal Regulations
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	OSHA: Occupational Safety & Health Administration

Data sources : ACGIH (American Conference of Governement Industrial Hygienists).

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

Redstone SDS EU CLP for Nest Labs

SDS prepared by: The Redstone Group, LLC.
6077 Frantz Rd
Suite 206
Dublin, Ohio, USA 43016
614.923.7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Nest Protect, 2nd Generation - Wired 230V

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 17/06/2015 Revision date: 07/04/2015 Version: 2.0

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

1.1. Product identifier

Product form : Article

Product name : Nest Protect, 2nd Generation - Wired 230V

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Smoke + Carbon Monoxide Alarm

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Nest Labs, Inc.
3400 Hillview Ave.
94304 Palo Alto, California - United States of America
T +1 (650) 331-1127
http://nest.com

1.4. Emergency telephone number

Emergency number : +1 (703) 527-3887 / +1 (800) 424-3887
CHEMTREC (24 HOURS)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Damaged battery may release : Organic. Hazardous vapours may be released. Flammable vapours are released.

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lithium metal (lithium iron disulfide) battery			Not classified	Not classified

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : If vapour is released : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Wash with plenty of soap and water.

First-aid measures after eye contact : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Get immediate medical advice/attention.

First-aid measures after ingestion : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Drink plenty of water, Do NOT induce vomiting, Get immediate medical attention.

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

Symptoms/injuries : No significant signs or symptoms indicative of any health hazard are expected to occur.

Symptoms/injuries after inhalation : If contents are released: Corrosive to the respiratory tract.

Symptoms/injuries after skin contact : If contents are released: Burns.

Symptoms/injuries after eye contact : If contents are released: Causes serious eye damage.

Symptoms/injuries after ingestion : If contents are released: Burns. Irritation of the respiratory tract and the other mucous membranes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Class D. Lith-X powder. Dry Lithium Chloride. Graphite. Carbon dioxide.

Unsuitable extinguishing media : Do not use water. Carbon dioxide. Soda extinguisher. sand. Class A. Class B. Class C.

5.2. Special hazards arising from the substance or mixture

Fire hazard : To our knowledge, the product does not present any particular risk, under normal conditions of use. Burning produces irritating, toxic and noxious fumes.

Explosion hazard : Keep away from ignition sources.

Reactivity in case of fire : If contents are released: Reacts violently with water. On heating: release of toxic/corrosive/combustible gases/vapours.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Do not use extinguishing media containing water. Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves resistant to chemical penetration.

Emergency procedures : Stop leak, if possible without risk.

6.1.2. For emergency responders

Protective equipment : Wear suitable gloves resistant to chemical penetration.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Damaged batteries should be placed in a sealed plastic bag or a plastic-lined metal container.

Methods for cleaning up : If contents are released: Liquid spill: take up in dry sand/earth/vermiculite. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not disassemble. Do not store near food, foodstuffs, drugs, or potable water supplies.

Incompatible products	:	Oxidizer. Water. Moisture.
Incompatible materials	:	Heat sources.
Storage temperature	:	-32 - 60 °C
Heat and ignition sources	:	Keep away from heat, sparks and flame.
Prohibitions on mixed storage	:	Keep away from incompatible materials.
Storage area	:	Store in dry, cool, well-ventilated area. Keep out of reach of children. Keep out of direct sunlight.

7.3. Specific end use(s)

temperature controls.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls	:	Protect from moisture.
Personal protective equipment	:	Avoid all unnecessary exposure.
Hand protection	:	None under normal use. If contents are released: Wear suitable gloves resistant to chemical penetration. EN374
Eye protection	:	None under normal use. If contents are released: Chemical goggles or safety glasses. EN166
Respiratory protection	:	None under normal use

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	No data available
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur. If contents are released: Reacts violently with water.

10.4. Conditions to avoid

Release of contents. Heat. Moisture. Avoid shock and friction.

10.5. Incompatible materials

If contents are released: Strong oxidizers. Water. Organic materials. Strong reducing agents. metals.

10.6. Hazardous decomposition products

If contents are released: Sulphur oxides. hydrogen chloride. Hydrogen. Corrosive vapours. Thermal decomposition generates : Hydrogen fluoride. Carbon oxides (CO, CO2). Aluminium. Lithium. copper. cobalt. Contact with water liberates extremely flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified
Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity (single exposure)	:	Not classified
Specific target organ toxicity (repeated exposure)	:	Not classified
Aspiration hazard	:	Not classified
Other information	:	Keep the container hermetically sealed.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Nest Protect, 2nd Generation - Wired 230V
PBT: not yet assessed
vPvB: not yet assessed

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	:	Do not dispose of waste into sewer.
Waste disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations.
Additional information	:	wastes from electrical and electronic equipment.
European List of Waste (LoW) code	:	For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	:	3091
UN-No. (IMDG)	:	3091
UN-No.(IATA)	:	3091
UN-No.(ADN)	:	3091
UN-No. (RID)	:	Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
Proper Shipping Name (IMDG)	:	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
Proper Shipping Name (IATA)	:	Lithium metal batteries contained in equipment
Proper Shipping Name (ADN)	:	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
Proper Shipping Name (RID)	:	Not applicable
Transport document description (ADR)	:	UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, 9, II, (E)
Transport document description (IMDG)	:	UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, 9, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	9
Danger labels (ADR)	:	9

:

IMDG

Transport hazard class(es) (IMDG)	:	9
Danger labels (IMDG)	:	9

:

IATA

Transport hazard class(es) (IATA)	:	9
Hazard labels (IATA)	:	9

:

ADN

Transport hazard class(es) (ADN)	:	9
Danger labels (ADN)	:	9

:

RID

Transport hazard class(es) (RID)	:	Not applicable

14.4. Packing group

Packing group (ADR)	:	II
Packing group (IMDG)	:	II
Packing group (IATA)	:	Not applicable
Packing group (ADN)	:	II
Packing group (RID)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No

Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	M4
Special provisions (ADR)	:	188, 230, 636, 360
Limited quantities (ADR)	:	0
Excepted quantities (ADR)	:	E0
Packing instructions (ADR)	:	P903, P903a, P903b
Transport category (ADR)	:	2
Tunnel restriction code (ADR)	:	E
EAC code	:	4W

- Transport by sea

Special provisions (IMDG)	:	188, 230, 360, 957
Limited quantities (IMDG)	:	0
Excepted quantities (IMDG)	:	E0
Packing instructions (IMDG)	:	P903
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-I
Stowage category (IMDG)	:	A

- Air transport

PCA Excepted quantities (IATA)	:	E0
PCA Limited quantities (IATA)	:	Forbidden
PCA limited quantity max net quantity (IATA)	:	Forbidden
PCA packing instructions (IATA)	:	970
PCA max net quantity (IATA)	:	5kg
CAO packing instructions (IATA)	:	970
CAO max net quantity (IATA)	:	35kg
Special provisions (IATA)	:	A48, A99, A154, A164, A181, A185
ERG code (IATA)	:	9FZ

- Inland waterway transport

Classification code (ADN)	:	M4
Special provisions (ADN)	:	188, 23, 36, 636, 661
Limited quantities (ADN)	:	0
Excepted quantities (ADN)	:	E0
Equipment required (ADN)	:	PP
Number of blue cones/lights (ADN)	:	0
Carriage prohibited (ADN)	:	No
Not subject to ADN	:	No

- Rail transport

Carriage prohibited (RID)	:	No

14.7. 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

15.1.1. EU-Regulations

Contains no substance on the REACH candidate list

15.1.2. National regulations

Germany

VwVwS Annex reference	:	Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	:	Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
GHS classification information.

Abbreviations and acronyms:

	CLP: Classification, Labelling, Packaging.
	CFR: Code of Federal Regulations
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	OSHA: Occupational Safety & Health Administration

Data sources : ACGIH (American Conference of Governement Industrial Hygienists).

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

National Fire Protection Association; Fire Protection Guide to Hazardous Materials; 10th edition.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

Redstone SDS EU CLP for Nest Labs

SDS prepared by: The Redstone Group, LLC.
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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Lithium Iron Disulfide, AA Primary Battery

Safety Data Sheet

according to Regulation (EU) No. 2015/830

Date of issue: 17/06/2015 : Version: 1.0

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

1.1. Product identifier

Product form : Article

Product name : Lithium Iron Disulfide, AA Primary Battery

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Lithium battery

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Nest Labs, Inc.
3400 Hillview Ave.
94304 Palo Alto, California - United States of America
T +1 (650) 331-1127
http://nest.com

1.4. Emergency telephone number

Emergency number : +1 (703) 527-3887 / +1 (800) 424-3887
CHEMTREC (24 HOURS)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Damaged battery may release : Organic. Hazardous vapours may be released. Flammable vapours are released.

PBT: not yet assessed

vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Iron Disulfide	(CAS No) 1309-36-0 (EC no) 215-167-7	24 - 35	Not classified
Iron	(CAS No) 7439-89-6 (EC no) 231-096-4	18 - 22	Not classified
1,3 Dioxolane	(CAS No) 646-06-0 (EC no) 211-463-5 (EC index no) 605-017-00-2	5 - 9	Flam. Liq. 2, H225
lithium	(CAS No) 7439-93-2 (EC no) 231-102-5 (EC index no) 003-001-00-4	6.6 - 6.7	Water-react. 1, H260 Skin Corr. 1B, H314
Carbon black	(CAS No) 1333-86-4 (EC no) 215-609-9	0 - 4	Carc. 2, H351
Graphite	(CAS No) 7782-42-5 (EC no) 231-955-3	0 - 4	Not classified
1,2 Diemethoxyethane substance listed as REACH Candidate (1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME))	(CAS No) 110-71-4 (EC no) 203-794-9 (EC index no) 603-031-00-3	2 - 4	Flam. Liq. 2, H225 Repr. 1B, H360FD Acute Tox. 4 (Inhalation), H332
Lithium iodide	(CAS No) 10377-51-2 (EC no) 233-822-5	0.3 - 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of R- and H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Get medical advice/attention if you feel unwell.

First-aid measures after inhalation : If vapour is released : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Wash with plenty of soap and water.

First-aid measures after eye contact : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Get immediate medical advice/attention.

First-aid measures after ingestion : In normal conditions of use, the components cannot be released because of the form in which the article or preparation is placed on the market. If contents are released: Drink plenty of water, Do NOT induce vomiting, Get immediate medical attention.

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

Symptoms/injuries : No significant signs or symptoms indicative of any health hazard are expected to occur. If contents are released: Suspected of causing cancer. Suspected of damaging fertility, May cause damage to organs through prolonged or repeated exposure.

Symptoms/injuries after inhalation : If contents are released: Corrosive to the respiratory tract.

Symptoms/injuries after skin contact : If contents are released: Burns.

Symptoms/injuries after eye contact : If contents are released: Causes serious eye damage.

Symptoms/injuries after ingestion : If contents are released: Burns. Irritation of the respiratory tract and the other mucous membranes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Class D. Lith-X powder. Dry Lithium Chloride. Graphite. Carbon dioxide.

Unsuitable extinguishing media : Do not use water. Carbon dioxide. Soda extinguisher. sand. Class A. Class B. Class C.

5.2. Special hazards arising from the substance or mixture

Fire hazard : To our knowledge, the product does not present any particular risk, under normal conditions of use. Burning produces irritating, toxic and noxious fumes.

Explosion hazard : Keep away from ignition sources.

Reactivity in case of fire : If contents are released: Reacts violently with water. On heating: release of toxic/corrosive/combustible gases/vapours.

5.3. Advice for firefighters

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses. Do not use extinguishing media containing water. Exercise caution when fighting any chemical fire.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk. No flames, no sparks. Eliminate all sources of ignition.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable gloves resistant to chemical penetration.

Emergency procedures : Stop leak, if possible without risk.

6.1.2. For emergency responders

Protective equipment : Wear suitable gloves resistant to chemical penetration.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Damaged batteries should be placed in a sealed plastic bag or a plastic-lined metal container.

Methods for cleaning up : If contents are released: Liquid spill: take up in dry sand/earth/vermiculite. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not disassemble. Do not store near food, foodstuffs, drugs, or potable water supplies.

Incompatible products : Oxidizer. Water. Moisture.

Incompatible materials : Heat sources.

Storage temperature : 0 - 45 °C

Heat and ignition sources : Keep away from heat, sparks and flame.

Prohibitions on mixed storage : Keep away from incompatible materials.

Storage area : Store in dry, cool, well-ventilated area. Keep out of reach of children. Keep out of direct sunlight.

7.3. Specific end use(s)

temperature controls.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbon black (1333-86-4)		
Belgium	Limit value (mg/m³)	3.5 mg/m³
Denmark	Grænseværdie (langvarig) (mg/m³)	3.5 mg/m³
Denmark	Anmærkninger (DK)	K
Finland	HTP-arvo (8h) (mg/m³)	3.5 mg/m³
Finland	HTP-arvo (15 min)	7 mg/m³
France	VME (mg/m³)	3.5 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	3.5 mg/m³
Ireland	OEL (15 min ref) (mg/m3)	7 mg/m³
Spain	VLA-ED (mg/m³)	3.5 mg/m³
Sweden	nivågränsvärde (NVG) (mg/m³)	3 mg/m³
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m³)	3.5 mg/m³
United Kingdom	WEL STEL (mg/m³)	7 mg/m³
Norway	Grenseverdier (AN) (mg/m³)	3.5 mg/m³
Australia	TWA (mg/m³)	3.5 mg/m³
Australia	STEL (mg/m³)	7 mg/m³
Canada (Quebec)	VEMP (mg/m³)	10 mg/m³ (Fibres de carbone et de graphite; Poussière totale) 5 mg/m³ (Fibres de carbone et de graphite; Poussière respirable) 3.5 mg/m³
USA - ACGIH	ACGIH TWA (mg/m³)	3.5 mg/m³
USA - ACGIH	Remark (ACGIH)	Bronchitis
Graphite (7782-42-5)		
Belgium	Remark (BE)	(excepté fibres) (fraction alvéolaire)
Denmark	Grænseværdie (kortvarig) (mg/m³)	5 mg/m³
Denmark	Anmærkninger (DK)	(naturlig, respirabel)
France	VME (mg/m³)	2 mg/m³
France	Note (FR)	(fraction alvéolaire)
Spain	VLA-ED (mg/m³)	2 mg/m³
Spain	Notes	(inhalable aerosol)
Sweden	nivågränsvärde (NVG) (mg/m³)	5 mg/m³
Sweden	Anmärkning (SE)	(inhalable aerosol)

Graphite (7782-42-5)		
United Kingdom	WEL TWA (mg/m³)	10 mg/m³ (inhalable aerosol) 4 mg/m³ (respirable aerosol)
Norway	Grenseverdier (AN) (mg/m³)	5 mg/m³ (Grafitt, naturlig, totalstøv) 2 mg/m³ (Grafitt, naturlig, respirabelt støv)
Canada (Quebec)	VEMP (mg/m³)	10 mg/m³ (Fibres de carbone et de graphite; Poussière totale) 5 mg/m³ (Fibres de carbone et de graphite; Poussière respirable) 2.5 mg/m³ (Graphite, naturel, poussiére respirable, Note 1) 2 mg/m³ (la poussière respirable)
USA - ACGIH	ACGIH TWA (mg/m³)	2 mg/m³
USA - ACGIH	Remark (ACGIH)	(respirable dust)

1,3 Dioxolane (646-06-0)		
Belgium	Limit value (mg/m³)	62 mg/m³
Belgium	Limit value (ppm)	20 ppm
Finland	HTP-arvo (8h) (mg/m³)	310 mg/m³
Finland	HTP-arvo (8h) (ppm)	100 ppm
Hungary	AK-érték	10 mg/m³
Hungary	CK-érték	10 mg/m³
Ireland	OEL (8 hours ref) (ppm)	20 ppm
Lithuania	IPRV (mg/m³)	50 mg/m³
Lithuania	Remark (LT)	O
Poland	NDS (mg/m³)	10 mg/m³
Poland	NDSCh (mg/m³)	50 mg/m³
Spain	VLA-ED (mg/m³)	61 mg/m³
Spain	VLA-ED (ppm)	20 ppm
Switzerland	VME (mg/m³)	62 mg/m³
Switzerland	VME (ppm)	20 ppm
USA - ACGIH	ACGIH TWA (ppm)	20 ppm
USA - ACGIH	Remark (ACGIH)	Hematologic eff

lithium (7439-93-2)		
Sweden	takgränsvärde (TGV) (mg/m³)	0.02 mg/m³
Sweden	Anmärkning (SE)	(2)

8.2. Exposure controls

Appropriate engineering controls : Protect from moisture.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : None under normal use. If contents are released: Wear suitable gloves resistant to chemical penetration. EN374

Eye protection : None under normal use. If contents are released: Chemical goggles or safety glasses. EN166

Respiratory protection : None under normal use

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Colour : white.

Odour : No data available

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : No data available

Auto-ignition temperature : No data available

Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur. If contents are released: Reacts violently with water.

10.4. Conditions to avoid

Release of contents. Heat. Moisture. Avoid shock and friction.

10.5. Incompatible materials

If contents are released: Strong oxidizers. Water. Organic materials. Strong reducing agents. metals.

10.6. Hazardous decomposition products

If contents are released: Sulphur oxides. hydrogen chloride. Hydrogen. Corrosive vapours. Thermal decomposition generates : Hydrogen fluoride. Carbon oxides (CO, CO2). Aluminium. Lithium. copper. cobalt. Contact with water liberates extremely flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m³ 4 h

Graphite (7782-42-5)	
LD50 oral rat	> 2000 mg/kg No mortality observed
LC50 inhalation rat (mg/l)	> 2000 mg/m³ 4 h, no mortality observed

Iron (7439-89-6)	
LD50 oral rat	> 5000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l/4h

1,2 Diemethoxyethane (110-71-4)	
LD50 oral rat	5370 mg/kg
LD50 dermal rat	> 5000 mg/kg

1,3 Dioxolane (646-06-0)	
LD50 oral rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	68.4 mg/l/4h

Skin corrosion/irritation	:	Not classified.
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified.
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified.
Reproductive toxicity	:	Not classified.
Specific target organ toxicity (single exposure)	:	Not classified

1,3 Dioxolane (646-06-0)	
Specific target organ toxicity (repeated exposure)	: Not classified.
Aspiration hazard	: Not classified
Other information	: Keep the container hermetically sealed.

SECTION 12: Ecological information

12.1. Toxicity

Graphite (7782-42-5)	
LC50 fish 1	> 100 mg/l 96 h, no mortality observed
EC50 Daphnia 1	> 100 mg/l 48 h, no mortality observed

Iron (7439-89-6)	
LC50 fish 1	> 10000 mg/l

1,2 Diemethoxyethane (110-71-4)	
LC50 fish 1	> 500 mg/l

1,3 Dioxolane (646-06-0)	
LC50 fish 1	> 95.4 mg/l

lithium (7439-93-2)	
LC50 fish 1	109 mg/l 96 h, read across supporting substance
EC50 Daphnia 1	29.4 mg/l 24 h, read across supporting substance

12.2. Persistence and degradability

Carbon black (1333-86-4)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

lithium (7439-93-2)	
Log Pow	-0.77

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Lithium Iron Disulfide, AA Primary Battery	
PBT: not yet assessed	
vPvB: not yet assessed	

Component	
1,2 Diemethoxyethane (110-71-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : wastes from electrical and electronic equipment.

European List of Waste (LoW) code : For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 3090

UN-No. (IMDG) : 3090

UN-No. (IATA) : 3090

UN-No. (ADN) : 3090

UN-No. (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) : LITHIUM METAL BATTERIES

Proper Shipping Name (IMDG) : LITHIUM METAL BATTERIES

Proper Shipping Name (IATA)	:	Lithium metal batteries
Proper Shipping Name (ADN)	:	LITHIUM METAL BATTERIES
Proper Shipping Name (RID)	:	Not applicable
Transport document description (ADR)	:	UN 3090 LITHIUM METAL BATTERIES, 9, II, (E)
Transport document description (IMDG)	:	UN 3090 LITHIUM METAL BATTERIES, 9, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	:	9
Danger labels (ADR)	:	9

:

IMDG

Transport hazard class(es) (IMDG)	:	9
Danger labels (IMDG)	:	9

:

IATA

Transport hazard class(es) (IATA)	:	9
Hazard labels (IATA)	:	9

:

ADN

Transport hazard class(es) (ADN)	:	9
Danger labels (ADN)	:	9

:

RID

Transport hazard class(es) (RID)	:	Not applicable

14.4. Packing group

Packing group (ADR)	:	II
Packing group (IMDG)	:	II
Packing group (IATA)	:	Not applicable
Packing group (ADN)	:	II
Packing group (RID)	:	Not applicable

14.5. Environmental hazards

Dangerous for the environment	:	No
Marine pollutant	:	No
Other information	:	No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	: M4
Special provisions (ADR)	: 188, 230, 310, 636
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P903, P903a, P903b
Transport category (ADR)	: 2
Tunnel restriction code (ADR)	: E
EAC code	: 4W

- Transport by sea

Special provisions (IMDG)	: 188, 230, 310, 957
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P903
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-I
Stowage category (IMDG)	: A

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: See 968
CAO max net quantity (IATA)	: See 968
Special provisions (IATA)	: A88, A99, A154, A164, A183, A201
ERG code (IATA)	: 9FZ

- Inland waterway transport

Classification code (ADN)	: M4
Special provisions (ADN)	: 188, 23, 31, 636, 661
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0
Carriage prohibited (ADN)	: No
Not subject to ADN	: No

- Rail transport

Carriage prohibited (RID)	: No

14.7. 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

15.1.1. EU-Regulations

Contains REACH Candidate List substance(s): 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) (EC 203-794-9, CAS 110-71-4)

15.1.2. National regulations

Germany

VwVwS Annex reference	: Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV	: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	1,2 Diemethoxyethane is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	1,2 Diemethoxyethane is listed

Denmark

Recommendations Danish Regulation	:	Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
GHS classification information.

Abbreviations and acronyms:

	CLP: Classification, Labelling, Packaging.
	CFR: Code of Federal Regulations
	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	OSHA: Occupational Safety & Health Administration

Data sources : ACGIH (American Conference of Governement Industrial Hygienists).

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.

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OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1
H225	Highly flammable liquid and vapour
H260	In contact with water releases flammable gases which may ignite spontaneously
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H351	Suspected of causing cancer
H360FD	May damage fertility. May damage the unborn child

Redstone SDS EU CLP for Nest Labs

SDS prepared by: The Redstone Group, LLC.
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